Office of
Consolidated
Hearings

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IN THE MATTER OF an undertaking of the Regional Municipality of Hamilton-Wentworth to develop and construct the Mountain East-West and North-South Transportation Corridor to connect Highway 403 in Ancaster to the Queen Elizabeth Way in the eastern portion of the City of Hamilton; and ancillary matters related thereto

Before M.I. Jeffery, Q.C. Chairman (Dissenting)
A.B. Ball, Member
M.D. Henderson, Member

October 24, 1985

CH82-08
J82-0007

IN THE MATTER OF Sections 2, 3 and 6(3) of The Consolidated Hearings Act (S.O. 1981, c. 20)

- and -

IN THE MATTER OF Sections 12(2) and 12(3) of The Environmental Assessment Act (R.S.O. 1980, c. 140)

- and -

IN THE MATTER OF Section 17(3) of The Planning Act (R.S.O. 1980, c. 379)

- and -

IN THE MATTER OF a reference to the Ontario Municipal Board by the Honourable Claude F. Bennett, Minister of Municipal Affairs and Housing, on a request by John F. Ellis, on behalf of The Save the Valley Committee, to amend the Official Plan for the Hamilton-Wentworth Planning Area, which would have the effect of deleting references to the proposed East-West, North-South Transportation Facility from the said plan
(O.M.B. File No. J82-0007)
Minister's File No. 25-OP-0056

- and -

IN THE MATTER OF Sections 24, 25 and 26 of The Niagara Escarpment Planning and Development Act (R.S.O. 1980, c. 316)

- and -

IN THE MATTER OF Section 28(3) of the Conservation Authorities Act (R.S.O. 1980, c. 85)

- and -

IN THE MATTER OF Section 64 of The Ontario Municipal Board Act (R.S.O. 1980, c. 347)

- and -

IN THE MATTER OF an undertaking of the Regional Municipality of Hamilton-Wentworth to develop and construct the Mountain

East-West and North-South Transportation
corridor to connect Highway 403 in Ancaster
to the Queen Elizabeth Way in the eastern
portion of the City of Hamilton

COUNSEL:

J. Edgar Sexton, Q.C. Thomas R. Lederer M. Greenberg (Student-at-Law) R. M. Plant, Q.C.	- for	the Regional Municipality of Hamilton-Wentworth
Herman Turkstra David Ivey E. Joy Grahek Geraldine Lindley	- for	the Hamilton Region Conservation Authority, The Save the Valley Committee Inc., The Limeridge Road Property Owners Interest Group Inc.
Stephen J. Stepinac	- for	the Niagara Escarpment Commission and the Ministry of Citizenship and Culture
Dana O. Hall	- for	the Ontario Land Corporation
B.W. Morison	- for	the Hamilton Trucking Council
George Yates, Q.C.	- for	the City of Stoney Creek
Herman Faber	- for	the Free Reform Church of North America
John R. Tidball M.P. Koskie	- for	the Ministry of the Environment

DECISION OF THE JOINT BOARD delivered by A.B. BALL AND M.D. HENDERSON

Under the Environmental Assessment Act an "undertaking" means:-

> "An enterprise or activity or a proposal, plan or program in respect of an enterprise or activity by or on behalf of Her Majesty in Right of Ontario, by a public body or public bodies or by a municipality or municipalities....."

While at the time of the preparation of the Environmental Assessment for this project municipal projects were exempt from the Environmental Asssessment Act, this proposal was made subject to the terms and conditions of the Act by a regulation that was filed on August 15, 1980 bringing this undertaking under the Environmental Assessment Act.

The undertaking, as set out in the style of cause above, is more fully described as follows. The undertaking is to develop and construct the Mountain East-West and North-South Transportation corridor located in the Regional Municipality of Hamilton-Wentworth. The proposed facility connects Highway 403 in Ancaster to the Queen Elizabeth Way in the eastern portion of the City of Hamilton. The facility, as proposed, would consist of a north-south freeway extending from the Queen Elizabeth Way at a new interchange and remaining within and following the Red Hill Creek Valley to a point just north of Greenhill Avenue where the roadway leaves the Valley to follow the general alignment of existing Mount Albion Road to connect with the east-west roadway in the vicinity of Mud Street and Pritchard Road. Access to this north-south portion is to be controlled through interchanges at Barton Street, Queenston Road, King Street, Greenhill Avenue, Mud Street and Dartnall Road with all other road and rail crossings to be made by way of grade separations.

The east-west section of the proposed facility is to be an arterial at-grade roadway extending from the Mud Street interchange to the existing Mohawk Road interchange at Highway 403. This east-west section generally follows a 60 metre wide vacant corridor immediately south of existing Limeridge Road.

Due to the complexity and size of the proposed undertaking estimated to cost some $123,915,000 at 1982 prices, it is proposed that it be constructed in three stages. These three stages are set out as follows:-

Stage 1 Upper Gage Avenue to King Street

This section is to be a four lane rural freeway and would include the following structures and interchanges:-

- C.N.R. grade separation immediately west of Dartnall Road
- Pritchard Road grade separation
- Mud Street - Trinity Church Road interchange
- Agate Street grade separation
- Mount Albion Road underpass structure
- Greenhill Avenue interchange
- T.H. and B. Railway grade separation
- King Street realignment and interchange construction
- Extension of Lawrence Road
- Extension of Potruff Road to Hixon Road

As part of this stage various local road improvements would be undertaken but are not included in the cost estimates of the proposed facility.

Stage 2 King Street to Queen Elizabeth Way

This section is also to be a four lane rural freeway and would include the following structures and interchanges:-

- Completion of the King Street interchange ramps
- Queenston Road interchange
- Barton Street interchange
- C.N.R. grade separation
- Brampton Street grade separation
- Queen Elizabeth Way interchange

The roadway and interchange construction north of Brampton Street (to connect to the Queen Elizabeth Way) is to be the responsibility of the Ontario Ministry of Transportation and Communications.

Stage 3 Upper Gage Avenue to Highway 403

This section is to be a four lane urban arterial roadway.

In addition to these three stages subsequent stages of construction are proposed, the estimated costs of which are included in the cost estimate set out above. These subsequent stages are proposed for construction as growth occurs and traffic volumes increase to provide for the ultimate development of the proposed facility and include the following:-

- widening of the controlled access section east of Upper Ottawa Street to Barton Street to provide a six lane urban freeway facility
- widening of the four lane urban arterial section from Upper Ottawa Street to Upper Gage
- construction of the Dartnall Road interchange

Over and above these specific construction projects sufficient right-of-way has been reserved to construct interchanges at:-

- Upper Gage Avenue
- Upper Wentworth Street
- Upper James Street
- Garth Street
- Glancaster Road extension

The question of the expansion of the roadway system in the east-west direction across the Mountain area and in the north-south direction crossing the Niagara Escarpment in the east end of Hamilton has been under consideration for several years commencing in 1951 by the City of Hamilton. During the intervening years several investigations were carried out and several reports made concerning the matter and in 1968 the east-west section was incorporated into the Official Plan of the City of Hamilton. In the early 1970's the Ministry of Transportation and Communications, together with the City of Hamilton, participated in property acquisitions within the designated east-west corridor which is 60 metres in width and located immediately south of existing Limeridge Road.

The study was carried out under the provisions of the Environmental Assessment Act in a series of phases.

Phase 1 - To establish the need for additional roadway facilities and their location and timing.

Phase 2 - To satisfy the need 15 alternataive combinations of east-west and north-south routes were identified. These routes were subjected to a preliminary screening which eliminated 9 of them.

Phase 3 - The remaining 6 alternatives were subjected to a detailed evaluation to determine their potential impacts and arrive at a preferred route.

Phase 4 - Involved a detailed appraisal of the preferred route together with consideration of mitigation measures.

A summary report was also prepared. The council for the Regional Municipality of Hamilton-Wentworth adopted the recommendations in these studies and authorized the following to be undertaken:-

- The preparation of a functional planning report for the selected alternatives.
- Development of a conceptual recreation master plan for the Red Hill Creek Valley compatible with the proposed roadway facility.
- Preparation of submission to the Ministry of the Environment in accordance with the requirements of the Environmental Assessment Act. (Submitted to the Minister of the Environment in January 1983.)

As a result of the review of the Environmental Assessment submission by 12 Ontario government ministries and agencies, as well as 4 other government bodies or agencies (Review issued August 1983), a Supplementary Documentation issued November 1983 was prepared by the proponent. This supplementary documentation was prepared to supplement the Environmental Assessment document and addresses those concerns of the participating reviewers.

The proponent, as set out in the Environmental Assessment Act, is the person (includes a municipality) who "carries out or proposes to carry out an undertaking.....". In this case the proponent is the Regional Municipality of Hamilton-Wentworth.

Red Hill Creek Watershed

The Red Hill Creek, which originates on the Niagara Escarpment, drains an area of some 72 square kilometres in the Regional Municipality of Hamilton-Wentworth. It flows over the Escarpment at several water falls and then through a deep valley to Windermere Basin where it empties into Hamilton Harbour close to the Queen Elizabeth Way Skyway bridge. It was this Red Hill Creek Valley that took up much of the time of this hearing. The Valley is divided into two sections, lower and upper.

The Lower Valley

This section runs from the Queen Elizabeth Way to King Street and is a narrow distinct river valley varying in depth from 20 to 50 feet through which the Red Hill Creek meanders. Its slopes are covered with woody vegetation with the bottom land being a mixture of fields and scattered groves of trees adding to the visual seclusion of this section. The land use in this area is mainly Residential and Industrial which limits its views from the surrounding area. Views are limited to a few short sections of side streets and those thoroughfares crossing the Valley. These thoroughfares include King Street, Queenston Road, Melvin Avenue and Barton Street.

The Upper Valley

This section runs from King Street to the Niagara Escarpment, which is a wider and more open area and is relatively remote from the surrounding urban area. From this area of the Valley good views are provided to the Escarpment over much of the City of Hamilton and Lake Ontario. This portion of the Valley contains most of the recreational facilities that presently exist in the Valley.

A preliminary hearing was held on June 27, 1984 in Hamilton to deal with any motions, procedural matters such as identification of parties and participants, among other things. During this preliminary hearing it was determined that the notice was defective due to recent cases involving Ontario Hydro. Subsequent to this hearing, and after receiving advice from independent counsel, the Board directed the proponent to issue a new notice of hearing. This was done and the hearing commenced on October 15, 1984 and continued for 99 hearing days and was completed on June 20, 1985, a period of some eight months.

The hearing itself was very complex in nature due to the tremendous volume of documents, reports, etc. necessary to comply with the Environmental Assessment Act and the Consolidated Hearings Act. In addition to the requirements of the various Acts the hearing was further prolonged by many motions covering such matters as procedures and admissibility of evidence and documents.

The cross-examinations of witnesses by counsel for both the proponent and the main opposition to the undertaking was extremely lengthy and in many cases repetitious in relation to the direct examinations and contributed to the length of the hearing. However, due to the nature and importance of the proposed undertaking and the number of years over which the proposal was under discussion and consideration by both the City of Hamilton and the Regional Municipality of Hamilton-Wentworth, the Board did not feel that it should interfere unnecessarily with the manner in which the hearing was being conducted and unfolding. As a result the Board is of the opinion that it heard all the evidence and argument necessary in order to make a proper decision.

During the course of the hearing the Board heard from some 118 witnesses both for and against the undertaking including two or three who took no position but expressed concerns about such things as proper access to their properties should the undertaking proceed.

Under the Consolidated Hearings Act, and having regard to the style of cause, the joint board is required to make a decision and order regarding:-

(a) whether the Environmental Assessment should be accepted or amended and accepted;
(b) whether approval to proceed with the undertaking should or should not be given;
(c) whether the approval mentioned in (b) should be given subject to terms and conditions and, if so, the provisions of such terms and conditions;
(d) the Official Plan reference associated with the undertaking;
(e) the issuance of a development permit with or without conditions under the Niagara Escarpment Planning and Development Act;
(f) any capital expenditure approvals that may be required;
(g) the issuance of a permit under the Conservation Authorities Act with or without conditions.

It should be pointed out at the outset that since the issue was alluded to during the hearing that the Board considered this hearing to be a logical part of the Environmental Assessment process and review thereof. It afforded ample opportunity for full public participation in addition to that already provided for during the review process as set out in the statutes for the Environmental Assessment submission. In this regard the Board is not aware of any requirement for public participation prior to the submission of the Environmental Assessment, although the proponent held several public information forums at various stages during the course of developing the proposal.

Under Section 4(10) of the Consolidated Hearings Act, 1981, "the decision of a majority of the members of a joint board presiding at a hearing is the decision of the joint board". In this decision the use of the words "the board" therefore refers to the majority.

At the outset of the public hearing over the strenuous objections of Mr. Turkstra, the Board approved the submission by the Region that its evidence be presented by witness panels. The Region had prepared a compilation of witness statements in a book dated September 4, 1984, and that document was entered as Exhibit 10 at the commencement of evidence by the first witness panel. In Exhibit 10, the index lists ten separate panels of witnesses with a title for the general area of evidence to be given by each panel. The document contains brief summary statements of the evidence to be given by each witness, together with the curriculum vitae of each witness. As the hearing proceeded over succeeding weeks and months, some of the proposed witness panels were amended by either the exclusion or addition of certain witnesses. One panel was changed so that the witnesses gave their evidence individually. In addition, the Region's case was supplemented by a number of additional witnesses not listed in Exhibit 10.

The first witness panel was concerned with the Regional context of the broad planning issues of the subject application. The members of this panel were:

(1) John Gartner, a qualified planner, employed as Director of the Regional Planning Division of the Regional Planning and Development Department. Mr. Gartner is responsible for all aspects of Regional

Planning and provides planning opinion and policy advice to Regional Council.

(2) Heinz Schweinbenz, a professional engineer, employed as general manager of the Hamilton Street Railway since 1982. Prior to that time, Mr. Schweinbenz had been employed as Director of Transportation Engineering for the Region from the time the Regional Municipality was established in 1974. In that capacity, he was responsible for the Regional Road System and he also served as Chairman of the Technical Advisory Committee for the proposed new expressway.

(3) Stanley Spencer is a professional engineer employed by the Region since 1975. Since 1981, he has been Director of Environmental Services with responsibility for all services related to sewage, water, solid waste, and storm water.

With the assistance of numerous exhibits, Mr. Gartner described the Regional location, exterior transportation modes and routes and the physical setting of the City of Hamilton. Exhibit 14, which subsequently was widely referred to during this lengthy hearing, is an up-to-date (1984) Land Use Map superimposed with various colours on a recent air photo mosaic. As shown on Exhibit 14, the major concentration of industrial land uses are: Bayfront (3,000 acres with 48,700 employees); East Hamilton - Stoney Creek (1,400 acres with 7,800 employees); and Mountain Industrial Park (1,700 acres with 1,000 employees). The major commercial areas are: Downtown (6,000,000 square feet with 18,500 employees); East Hamilton (1,600,000 square feet with 4,400 employees); Highway 20 - Centennial Road (1,300,000 square feet with 3,200 employees), and Upper James Area (840,000 square feet with 2,500 employees). He pointed out the significance of those areas and employment levels with respect to the residential areas (shown coloured in yellow), and the travel and development constraints imposed by the Niagara Escarpment (Hamilton Mountain) and other physical barriers.

Mr. Gartner identified four development periods that have occurred in the Hamilton area, beginning in the early 1800's. The first period saw the establishment of commercial communities related to the agricultural function of the general area, and that relationship still exists. The introduction of railway services in the mid 1800's and the development of water transportation in the mid 1920's both contributed to and strengthened a long period of industrialization during which the relationship developed between transportation and economic development. During that period and up to approximately 1940, the City of Hamilton emerged as the main centre and, because of the natural constraints such as the escarpment, the City developed in a linear grid style on the lower level between the escarpment and the lake. The opening of the Queen Elizabeth Highway in 1939 and the expansion of road systems led to a period of suburbanization mainly above the escarpment in the mountain area. By the early 1950's, a fourth period began to emerge with post-war development as a Regional Service Centre. It is Mr. Gartner's view that these various development periods overlap and complement each other, but all show a strong relationship between economic development and transportation systems, which has developed through many years and is still present.

Demographic studies by the Region's Planning Department show that the Region has only experienced moderate growth in recent years. In the period from 1971 to 1981, population increased by 2.4 per cent from 402,000 to 411,500, while Ontario's growth was 12 per cent and Canada's growth was

12.9 per cent for the same period. The area of Western Lake Ontario referred to as the "Golden Horeshoe" grew by 14.7 per cent. The conclusion drawn here by Mr. Gartner is that the Hamilton area is seriously lagging behind other major areas in growth. Although employment experienced a larger growth rate in the same period, the relationship of employment growth between Hamilton and other areas is similar to the population growth relationship. These various population and employment relationships are illustrated on Exhibits 18 to 26, inclusive. Exhibits 29 and 30 show the evolution of a changing relationship in growth and development between the lower City and the upper City in recent years.

The Official Plan was adopted in 1979 on the basis of a projected population of 550,000 for the Regional Municipality of Hamilton-Wentworth by the year 2001. Within a relatively short period of time by 1981, it became obvious that if the slow growth rates continued, the projected population of 550,000 would not be reached by the year 2001 and indeed it might never be reached.

Exhibit 32 is a study of population projections completed in September, 1981, and as a result of that study based on a projection method called "The Age Cohort Survival Method", the 2001 most likely population projection was revised to 445,000. That is the projection now accepted by the Region for planning purposes.

Exhibits 33 and 34 show the progression of development up to 1984 and the shift of development to the mountain area is shown on Exhibits 35A, B, and C.

Mr. Gartner said that the development history of the Hamilton area clearly shows the need for adequate transportation systems to provide the opportunity for economic development. However, there are certain physical barriers to be overcome, e.g. the escarpment because of increasing suburbanization on the mountain, and at the same time, it is necessary for the Region to maintain an aggressive economic development stand.

As a supporting witness, Mr. Schweinbenz described the Regional Road System, illustrated on Exhibits 37 and 38. He said the presence of so many geographical impediments had focused transportation into a linear system, with few opportunities to overcome barriers. The Regional Road System evolved from the former County Road System with the Region having no responsibility for public transit.

By 1977, the Region established policies that said the Regional Road System should provide an arterial function for the movement of through traffic. Also, the system was to provide access to major generators of heavy truck traffic, social and recreational traffic; to provide crossings of major barriers to free traffic movement; and to provide an urban and rural grid (emphasis added).

From an economic point of view, it was determined that a Regional transit system was necessary and, in 1979 the Region acquired the Hamilton Street Railway. Exhibit 39 shows the present public transit system. The mandate of the public transit system was to provide a basic transportation function for those with no other mobility option and to provide a balanced set of options to those with mobility choices. Therefore, an early objective was integration of all service areas in the Region and integration of fares. Those objectives have been met. A third objective was to expand the service to the entire urban area of the Region and that has not yet been accomplished. Another objective is for the transit system to support the economic goals of the community. Mr. Schweinbenz said the Regional road system and the transit system are still evolving as the urban area matures, but a severe constraint is imposed by the lack of adequate escarpment crossings.

Mr. Spencer, as a supporting witness, described the infrastructure of services in place for water, sewers, storm sewers and solid waste disposal.

The evidence of this first witness panel was factual to show past development up to existing conditions, but the witnesses were subjected to lengthy cross-examination by counsel for the main objectors to this application. The cross-examination confirmed the substantial change in the projected population for the year 2001 from 550,000 to 445,000, but Mr. Gartner maintained his opinion that the proposed undertaking was required for economic development of the region. He compared the proposed road to the Don Valley Parkway in Metropolitan Toronto and the Conestoga Expressway in Kitchener as examples of the beneficial impact of such roads on economic development. He said that economic development has a direct relationship to location and accessibility.

The second witness panel called by the Region consisted of John Farrow, Victor Rocine, and Donald Cole. This panel gave evidence with respect to the existing economic conditions in the Region and an economic outlook for the Region as both matters are related to the Region's transportation system.

Currie, Coopers and Lybrand is a firm of management consultants retained to act for the Region in this matter. John Farrow is the partner in that firm who is responsible for economic development practice. Mr. Farrow has a background of academic qualifications and practical experience in urban and regional planning, business administration and economic development, as detailed in his curriculum vitae contained in Exhibit 10. He was the principal witness for this witness panel and his evidence was supported by the evidence of Donald Cole. Mr. Cole is the economic development director for the Regional Municipality of Hamilton-Wenthworth. Mr. Rocine is an associate of Mr. Farrow in the firm of Currie, Coopers and Lybrand, and although he was sworn as a member of the witness appeal, he was not called upon to give evidence.

In 1978, Currie, Coopers and Lybrand had been retained by the Region to study and make recommendations with respect to economic development in the Region. Exhibit 15 is a copy of the findings of that study, a report dated September 8, 1978 and titled an "Action Plan for Economic Growth". Mr. Farrow was an advisor to the study team at that time. In 1984, Currie, Coopers and Lybrand were again retained to update the 1978 study and Mr. Farrow supervised and led the study team which produced Exhibit 47, a report dated September 25, 1984 and titled "Regional Economic Development and The Proposed East-West and North-South Transportation Corridor". It is this report which contains essentially the evidence of this witness panel.

The lengthy evidence by Mr. Farrow was given to support the various conclusions stated in his report (Exhibit 47). A good summary of that evidence and the major recommendation is contained in the Executive Summary, pages 1 to 4 of the report. Basically, the Region has implemented most of the recommendations made in the 1978 report and some progress can be seen, but economic growth is still lagging behind the rest of Ontario, and population growth has been slow. It is the considered opinion of the witness panel that the undertaking proposed in the application now before the Board is a necessary public investment which will keep the Region's infrastructure competitive and serve as a strategic link in transforming the Regional economy. Lengthy cross-examination of this witness panel did not change the evidence.

The third witness panel comprised only one witness, Norman Pearson. Mr. Pearson received his undergraduate planning degree in Great Britain and practiced in the planning field in Great Britain before emigrating to Canada in 1954. From 1954 to 1956, he was employed in the planning field for Central Mortgage and Housing Corporation and the City of Toronto. From 1956 to 1959, he was Director of Planning for the Hamilton-Wentworth Planning Area Board. From 1959 to 1962, he was Director of Planning for the Burlington and Suburban Area Planning Board and Commissioner of Planning for the Town of Burlington. In 1962, he established his own planning consulting practice and since that time he has engaged in numerous planning projects, principally in Ontario. He has appeared as an expert witness before many public hearing tribunals, particularly the Ontario Municipal Board. He has at various times served as lecturer and professor at McMaster University, Waterloo Lutheran University, the University of Guelph and the University of

Western Ontario in the related areas of planning, geography, resources development, and political science.

During his period of employment in the Hamilton-Burlington area and continuing in his later private practice in this area, Mr. Pearson was involved in numerous projects, as detailed in his evidence, related to planning for future transportation in this area. His evidence is concerned with a historical overview of planning issues in Hamilton-Wentworth as those issues relate to the development of transportation policies. In that respect his evidence supplements and complements the earlier evidence of the first witness panel consisting of Mr. Gartner, Mr. Schweinbenz and Mr. Spencer.

Mr. Pearson reviewed the historical development of transportation systems, linking the Hamilton area to the rest of Ontario and described the constraints to development in the area, e.g. the escarpment and the narrow beach strip separating Hamilton Harbour from Lake Ontario. It was his view that Hamilton had to remain active in developing its infrastructure to overcome disadvantages of location and topographic impediments to development. The nature of much of his evidence was such as to be purely historic and as already described by Mr. Gartner.

He said that the spread of suburbanization to the mountain area highlighted the significance of the Red Hill Creek Valley as a servicing corridor and the need for completion of a ring road expressway system to encircle the expanded City and provide internal access to the area. He referred to numerous studies which had been carried out (some later entered as exhibits in these proceedings) to demonstrate that planning for the application now before this Board had really commenced many years ago, probably around the year 1951. He said it would be wrong to separate the east-west portion of the project from the north-south portion because only a total integrated project would accomplish the intent of the ring road system. His review of recent development supports that concept and, in his opinion, the proposed road will greatly enhance economic development in the area, thereby fulfilling the stated policies of both the City's and the Region's Official Plan. He said negative impact now arises because alternate north-south routes have been lost and the only present suitable north-south location is in the Valley of Red Hill Creek. He cited the Conestoga Parkway in Kitchener-Waterloo and the Don Valley Parkway in Metropolitan Toronto as examples of comparable, beneficial projects. He said that adverse impacts can be adequately mitigated and that the beneficial impacts of the proposed road outweigh the negative impacts.

Under cross-examination, Mr. Pearson said his standard procedure, as a consultant, is that he be free to give independent and objective advice on a project. Otherwise, his cross-examination by Mr. Turkstra revealed nothing relevant to the hearing and did not serve to alter his stated opinions.

The fourth witness panel was comprised of John Gartner, Derek Coleman, and Heinz Schweinbenz. The evidence of this witness panel centres on the Official Plan and is intended to co-ordinate all previous evidence into the present policy context of the Official Plan insofar as these proceedings are concerned. Mr. Gartner was the principal witness and his evidence was supplemented and supported by Dr. Coleman and Mr. Schweinbenz.

The Official Plan of the Regional Municipality of Hamilton-Wentworth was adopted by Council by the enactment of By-law R80-094 on June 17, 1980. The Official Plan was substantially approved by the Minister of Housing on June 26, 1980, with the exception of some matters which were referred to the Ontario Municipal Board. Subsequent approvals by both the Ontario Municipal Board and the Cabinet of the Province of Ontario resulted in final approval on June 3, 1982 of the Official Plan in the form entered as Exhibit 70 in these proceedings. Since that time, eleven amendments have been adopted by Council, not all yet approved by the Minister. Only Amendment No. 11, which deals with staging in the City of Hamilton, has any relevance to these proceedings.

As stipulated in the 1983 Planning Act and in the Regional Municipality of Hamilton-Wentworth Act, the Regional Official Plan is the senior planning policy document for the whole municipality and all planning policy documents for the constituent area municipalities of the Region are required to conform to the Regional Official Plan. It is, therefore, clear that in these proceedings the Board is required to recognize the Regional Official Plan as amended by Official Plan Amendment No. 11.

Mr. Gartner said that Exhibit 70 is actually somewhat more than the Official Plan and that it is a three-part document containing the following:-

Part I - The Planning Framework

This part describes the planning organization, the purpose and scope and format of the plan, provincial policies affecting the plan and projections of growth to the year 2001.

Part II - Official Plan Policies

> This part contains those policies which were approved as the Official Plan including a set of Regional Policy Maps.
>
> Part III - Appendix to the Plan
>
> This part contains statements of Council policies which are not normally part of an Official Plan document but do show the express intentions of Council for the government and development of the Region.

In Section 16, Map No. 1 is titled "The Regional Development Pattern", and a larger scale of this map is entered as Exhibit 71. This is essentially the schedule of proposed land use, and clearly indicated thereon is the future roadway which is the subject of these proceedings before the Board. The map also indicates other significant elements of present and future development for both urban and rural policy areas.

Section 10.1 of the Official Plan relates to the provision of water and sewage services and states in part:-

> "It shall be the policy of Regional Council:-
>
> 10.1.1 To provide an adequate supply of potable water and a suitable sewage collection and disposal system to the designated Urban Policy Areas as the land is developed."

Section 7 of the Official Plan relates to economic development and the following parts of Section 7 are significant:-

> "7 ECONOMIC DEVELOPMENT
>
> OBJECTIVES
>
> . To encourage diversification within the Area Municipalities in terms of services offered, so that in concert with the Regional Centre, a broad range of service is available to the residents of the Region as well as the "larger economic area" beyond the Region, in accordance with the inter-Regional role established

for Hamilton-Wentworth by the Province in its Toronto-Centred Region Concept.

- To encourage the provision of sufficient job opportunities for residents of the Region.
- To diversify job opportunities within the Region.
- To provide opportunities for each Area Municipality to increase and diversify its non-residential tax base by encouraging an increase in total job opportunities in each Area Municipality in suitable proportion to its population.
- To ensure that the residents and businesses of the Region will have access to the widest possible range of community, business and personal services within the Region.

7.3 SECONDARY SECTION

7.3.1 MANUFACTURING

OBJECTIVES

- To provide sufficient opportunities for the diversification of the manufacturing industry.
- To facilitate the growth and expansion of the Region's existing manufacturing firms.
- To provide sufficient suitably located serviced industrial land to accommodate the anticipated growth in manufacturing employment.

POLICIES

7.3.1.1 To require that new manufacturing plants be located on designated industrial land that has full municipal services (piped water and sewage) except for:-

(a) Manufacturing plants which process the agricultural or natural resource commodities of rural Hamilton-Wentworth provided that such plants will not require municipal sewer and water services; and

(b) Manufacturing plants which will not require municipal sewer and water services and which locate in areas designated unserviced industrial in the Official Plan of the Area Municipalities.

7.3.1.2 To attempt to accommodate on new industrial land, those manufacturing firms which are

> presently located in the Region but must relocate or expand".

Section 5 of the Official Plan relates to Environmental Protection, and applicable to these proceedings is Section 5.3 "Environmentally Sensitive Areas". The stated objective is "To protect to the fullest extent possible the Environmentally Sensitive Areas". Under policies, Section 5.3.1 lists 37 individual areas of which two are significant in this application.

No. 23 -- Red Hill Creek - King's Forest

No. 28 -- Red Hill Creek Marsh - Van Wagner's Marsh

These areas are located on Map No. 4 of Section 16 which is also entered in larger scale as Exhibit 72.

The identification and study of those Environmentally Sensitive Areas was carried out by Dr. Derek Coleman, a highly qualified environmental planner. Dr. Coleman's work initially was done for the Hamilton Region Conservation Authority in 1975 and 1976, both for use in limiting fill and construction lines, and also, as input to the preparation of the Regional Official Plan.

Dr. Coleman's report is listed as Document No. 26 of Appendix A of the Environmental Assessment Submission previously entered as Exhibit 58. His report is titled "Environmentally Sensitive Areas Study - Hamilton Region Conservation Authority 1976" and is Exhibit 476 in these proceedings. Exhibit 73 is a map showing the extent of that work. His work included a complete environmental study with the establishment of strict criteria for all necessary identification purposes. Essentially, one major result of his work is a list of 37 areas in Section 5.3 of the Official Plan, together with the supporting policies therein.

One major conclusion which he draws is: "If one is going in a north-south direction one has to cross the Niagara Escarpment and the sensitive areas at some point. So, it is unavoidable that that feature has to be crossed".

Mr. Gartner then reviewed the stated policies of the Official Plan respecting the Environmentally Sensitive Areas. These policies are:-

> "5.3.2. That boundaries of environmentally sensitive areas shown on Map No. 4 are general in nature and that more precise boundaries may be defined in Area Municipal Official Plans and Secondary Plans.
>
> 5.3.3. That the boundaries of Environmentally Sensitive Areas may be redefined as a result of a detailed Environmental Impact Statement without amendment to this Plan.
>
> 5.3.8 To add or remove Environmentally Sensitive Areas of Regional significance, from time to time, by amendment to this Plan. Such amendments will be based upon detailed analysis of the natural environment in the areas. The amendments may be prompted by the results of the monitoring program, changes in land use which are incompatible with the environmentally sensitive designation or proposals for the designation of new Environmentally Sensitive Areas which are supported by Environmental Impact Statements.
>
> 5.3.10 That an Environmental Impact Statement referred to in the policies of this Plan shall contain:-
>
> (a) The environmental quality, uniqueness and character of the environmentally sensitive area in which the proposed undertaking will occur;
>
> (b) A description of the purpose of the undertaking;
>
> (c) A description of alternative methods of carrying out the undertaking;

(d) An evaluation of the advantages and disadvantages to the environment of the undertaking; and

(e) A description of and a statement of:

1 - The environment that will be affected or that might reasonably be expected to be affected, directly or indirectly,

2 - The effects that will be caused or that might reasonably be expected to be caused to the environment, and

3 - The actions necessary or that may reasonably be expected to be necessary to prevent, change, mitigate or remedy the effects upon or the effects that reasonably be expected upon the environment, by the undertaking.

5.3.16 To approve development in a manner which minimizes adverse impacts on Environmentally Sensitive Areas.

5.3.24 Where an environmental assessment of a proposal is being carried out under The Ontario Environmental Assessment Act, that assessment will be considered as fulfilling the Environmental Impact Statement requirements of this Plan."

Section 9 of the Official Plan contains policies related to transportation. Map No. 6 of Section 16 of the Official Plan is a map showing the transportation plan and was earlier entered in larger scale as Exhibit 37. The proposed new road is clearly indicated on this map. This evidence is so significant to the matter at hand that the Board considers it necessary to quote, as stated by Mr. Gartner and Mr. Schweinbenz, the following portions of Section 9:-

"9 TRANSPORTATION

The movement of people and goods is an important consideration in planning for the future development of the Region. The transportation policies in this Plan are intended to ensure that transportation facilities are provided which will facilitate the movement of people and goods with the least disruption to the human and natural environment.

The travel characteristics of people can change with time resulting in changes in traffic. The transportation system outlined in these policies has been designed with a degree of flexibility after analysing the potential effects on travel characteristics due to such influences as the diminishing petroleum supplies and possible changes in technology.

The transportation policies are designed to emphasize the role of transit in the Region of Hamilton-Wentworth However, analysis shows that the automobile will not become obsolete in the next twenty years and people will continue to rely on the automobile for much of their trip making. The policies in this Plan are designed to promote transit in those areas where it is most effective. The primary focus of transit will be to provide, where feasible, an alternative to the automobile in the urban area.

Improved transit service will lessen demands on the highway and street system, thereby reducing needs for road improvement. However, the need for road improvements cannot be eliminated by expanded transit service. In fact, many forms of public transit rely on uncongested roads to facilitate acceptable levels of transit service.

Roads are an important element in the overall transportation system and must be planned as such. The policies in this Plan to upgrade and improve the road network are essential in order to meet the economic, recreational and social objectives of the Plan. The policies support both the road and transit systems, while attempting to reduce the preponderance of automobiles and create a more even balance between the use of the automobile and transit.

OBJECTIVES

- Provide an efficient, convenient and safe transportation system that will support the Regional Development Pattern and provide a balance between public and private modes of transportation.

- Provide good transportation connections between Hamilton-Wentworth and points beyond the Region's borders in order to make Hamilton-Wentworth accessible as a centre for industry, trade, commerce, culture, recreation and tourism.

- Progressively and continuously upgrade the transportation system in order to support and compliment the Regional Development Pattern.

- Take into account safety, social, environmental and economic considerations as well as transportation system performance when planning improvements to and operating the transportation system.

- Provide adequate transportation access to all geographic areas and social and economic groups with the Region.
- Maintain the capacity of the existing arterial road system in order to minimize the need for new facilities.
- Provide a level of transit service sufficient to play a significant role in the movement of persons throughout the urbanized area of the Region and especially into the Hamilton downtown area.
- Co-operate with adjacent municipalities, other agencies and other levels of government in order to ensure that transportation facilities not under the control of the Region are compatible with and support the Regional land use and development Plan.
- Plan future road, transit and parking facilities as part of a total integrated transportation system consistent with the land use and development pattern.

9.1 GENERAL POLICIES

It shall be the policy of Regional Council:-

9.1.1 To provide new transportation facilities and services or ugprade existing facilities and services where they are deemed necessary to support development plans that are consistent with the Official Plan policies, and where the existing facility or service is under the jurisdiction of the Region or where the new facility or service meets established criteria to define it as a Regional responsibility.

9.1.2 That public transit receive a high priority in the planning of new transportation facilities in the urban area. Transit solutions to transportation access and capacity problems will be integrated with improvements to the road system.

9.1.3 To protect any rights-of-way which may become available until an evaluation is made of their potential as a component of the Regional transportation system.

ROADS POLICY

The policies of the Province regarding design, operation, maintenance and control of adjacent land use shall prevail over the policies of this Plan for roads under the jurisdiction of the Province.

It shall be the policy of Regional Council:-

9.2.1 That the road system on Map No. 6 be adopted as the framework for planning and designing the road system necessary to support the land use plan as outlined in the Official Plans of the Region and Area Municipalities. The road system shall be upgraded progressively throughout the planning period to accommodate the transportation demands associated with the development pattern.

9.2.2 That all public roads in the Region be classified by function in order to aid the planning and implementation of road improvement, operation and maintenance programs.

In areas of new development or extensive redevelopment, the road system classification will be utilized as the basis for decisions on road right-of-way requirements, setbacks, and access control. In areas where the majority of the existing land use along a road is developed at the time that this Plan is adopted, the road system classification will be utilized as a basis for decisions concerning parking controls, traffic control systems and intersection improvements. In all areas in the Region the road system classification will be utilized to aid in decisions concerning design standards for road construction, road maintenance priorities and transit and truck routes.

The road classification is shown for roads of Regional significance on Map No. 6. The classifications are as follows:-

(a) Inter-regional Highways - strategic links in the road network the primary function of which is to carry long distance traffic into, out of, and through the Region. The right-of-way and design of these roads shall be adequate to accommodate long distance and through traffic as well as traffic generated by abutting land use where direct access to the road is permitted. Full or partial control of access from these roads to abutting land uses shall be required where development or redevelopment warrants such action and where alternative access can be provided.

(b) Arterial roads - strategic links in the road network the main functions of which are to carry relatively high volumes of long distance traffic within, between or through the Area Municipalities and/or to provide access past major geographic barriers and to inter-regional highways.

The right-of-way and design of these roads must be adequate to accommodate this longer distance traffic as well as traffic generated in the immediate vicinity of the road and by abutting land use, where direct access to the road is permitted. Generally, full or partial control of access to abutting land use shall be provided where new development or redevelopment warrants such action and where alternative access can be provided; and

(c) All public roads in the Region not designated in Map No. 6 as belonging to one of the preceding two classifications shall be classified as either arterial, collector or local roads in the Official Plans of the Area Municipalities or in secondary plans.

9.2.3 That the following changes may be made in the classification of roads as designated in Map No. 6 without requiring amendment to this Plan:-

(a) Roads may be upgraded to an arterial classification where these roads are part of a solution to the road improvements as outlined in transportation Policy 9.2.9 of this Plan, and

(b) Roads may be changed from a Provincial Highway to a lower classification if both Regional Council and the Provincial Minister of Transportation and Communications agree.

9.2.4 That the basic right-of-way widths for arterial roads be:

60 metres (approximately 200 feet)	when there is complete control of access to abutting land use.
26 - 36 metres (approximately 86 - 120 feet	when there is only partial or no control of access to abutting land use

Roads under the jurisdiction of the Province shall have the right-of-way widths that conform with the policies of the Province.

9.2.5 To take immediate action to protect the specified road right-of-way widths on the Regional roads through the adoption of appropriate by-laws. The Area Municipalities and the Province shall be encouraged to take similar action to protect those roads covered under the policies of this Plan but not under the jurisdiction of the Region.

9.2.6 In areas that are underdeveloped at the time this Official Plan is adopted or in areas planned for extensive redevelopment, that the right-of-way of the road system be protected up to the limits of the minimum width specified above, except on those roads where either the Official Plan of the Area of

Municipality, secondary plans or policies of the Council of either the Region or the Area Municipality specify that a greater right-of-way is required.

9.2.7 In areas where the majority of the existing land use along a road, or a significant portion of a road, is developed at the time that this plan is adopted, that the standards for the right-of-way of the road, as specified, shall act only as a guide. Special studies shall be undertaken to determine a practical right-of-way that can serve the traffic requirements along the road while minimizing the negative impacts on the existing development. The exact right-of-way to be protected in these areas will be specified by policy of Council after these studies have been completed.

9.2.8 To acquire property abutting a Regional road and within the specified road allowance right-of-way by means of purchase or otherwise, when Council determines such action to be necessary.

9.2.9 To make major improvements in the road system over the planning period. To overcome existing and forecasted deficiencies in the arterial road network, such improvements will include the following new road connections:-

(a) A new road link from Burlington Street West to Highway 403 as designated in Map No. 6;

(b) A new east-west roadway on the Hamilton Mountain connecting from Highway 403 in the west to a new north-south arterial road in the east as designated in Map No. 6;

(c) A new north-south road, crossing the Niagara Escarpment along the Red Hill Creek Valley connecting the new east-west roadway in the south to the Queen Elizabeth Way in the north as designated in Map No. 6;

(d) Additional east-west road capacity on existing arterial roads or a new road connection between downtown Hamilton and the junction of Main Street and Cootes Drive in West Hamilton;

(e) Additional east-west road capacity on existing arterial road connections or a new road connection in the corridor immediately north of the Niagara Escarpment between downtown Hamilton and the junction of King Street and Lawrence Road in the east; and

(f) Additional north-south road capacity across the Niagara Escarpment in the central Hamilton corridor between Becketts Drive and the Sherman access to be restricted to improvements to the approaches of the existing access routes.

9.2.10 To protect lands for full controlled access interchanges with the proposed east-west roadway where the road crosses; Garth Street, Upper James Street, Upper Wentworth Street, Upper Gage Avenue and the northern extension of Dartnall Avenue. The exact boundaries of the lands required for these interchanges shall be designated in Secondary Plans.

9.2.11 To conduct studies regarding the need for additional major improvements in order to facilitate the flow of traffic, including an additional Mountain access route in the Town of Stoney Creek, and a Main Street-Highway No. 8 by-pass of the downtown area of the Town of Dundas.

9.2.12 To establish the relative priorities of the recommended major improvements in a transportation systems plan which will provide the basis for introducing transportation capital facilities into the Region's Five (5) Year Capital Program.

The transportation systems plan will be prepared as part of the continuing planning process and will be updated form time to time so as to have an estimate of the capital requirements for transportation facilities for a minimum of a 10 year horizon at all times.

9.2.13 That arterial roads in developing areas be designed primarily to accommodate the through movement of traffic between major land use areas, municipalities and settlement areas. Accordingly, the Area Municipalities shall provide policy guidance through their Official Plans and where deemed appropriate, restrict access to individual parcels of lands by employing devices such as reverse frontage, separate frontage roads, and common access points for a number of properties.

9.2.14 That new residential development adjacent to or in the immediate vicinity of an arterial road employ land development and design techniques to minimize the adverse visual and noise impacts of the roadway operation on that development.

9.2.15 That the right-of-way and design of new arterial roads and reconstruction of existing arterial roads by the Region take into consideration:-

(a) The requirements for pedestrian movements along and across the roadway including provisions in the right-of-way for adequate sidewalks, centre median pedestrian refuges and cross walks in the urban area and in the rural area where pedestrian use warrants such design considerations;

(b) The requirements of the public transportation system so transit vehicles will be able to operate efficiently and safely without significantly reducing the through movement function or the safety of the arterial road;

(c) The potential demands for bicycle use along the roadway. Where warranted and feasible, sufficient space within the right-of-way of the road shall be included to allow for the construction of safe bicycle paths, by the appropriate Area Municipality;

(d) The impact of the roadway on the surrounding land use, and shall employ, where warranted and feasible, design features that will reduce the visual and noise impact caused by the operation of the road;

(e) The aesthetics of the road, and shall include in design, where it is feasible, provisions for landscaping and tree planing; and

(f) The impact of the roadway on historical, cultural and recognized archeological resources and, where feasible, shall be designed in a manner that minimizes any detrimental impacts on these resources.

9.2.16 That in order to preserve the capacity of the arterial road system and to provide for the safe and efficient movement of traffic:-

(a) On-street parking will be prohibited on sections of arterial roads where feasible, and

(b) On-street stopping shall be prohibited on all arterial roads during the periods of peak traffic use.

9.2.17 That the Area Municipalities circulate to the Regional Engineer, in the early planning stages, all development or site plans in areas adjacent to a Regional road.

9.2.18 That the Area Municipalities include in secondary plans provision for sufficient off-street parking for all new development adjacent to an arterial road, to ensure adequate parking to meet the needs of the development without necessitating the use of the arterial road for parking.

9.2.19 That the Area Municipalities require all new development abutting arterial roads to provide adequate off-street loading and unloading facilities located in such a manner to minimize the detrimental impact by vehicles using such facilities on the free flow or safety of other vehicles operating on the arterial road system.

9.2.20 To designate a system of scenic drives with the co-operation of the Area Municipalities. These routes will be developed in a manner that emphasizes the scenic aspects of the Region of Hamilton-Wentworth.

9.2.21 To maintain an efficient system of designated truck routes throughout the Region, utilizing portions of the arterial road system This system shall be reviewed on a regular basis to minimize the intrusion of trucks into residential areas while providing an acceptable level of service to industrial and commercial development in the Region.

9.2.22 To encourage the Provincial Government, through the Ministry of Transportation and Communications, to:-

(a) Plan for additional highway capacity between Hamilton-Wentworth and points east via both the Q.E.W. Skyway corridor and Highway 403 corridor in order to maintain a level of accessibility into the Region that is consistent with the economic and development goals of the Region and to provide this additional capacity when demand warrants;

(b) Monitor the need for a new alignment of Highway 6 north from Caledonia into Hamilton that will accommodate traffic from Nanticoke to Hamilton-Wentworth, Toronto and points east; and to construct this facility when demand warrants on an alignment that has the least disruptive effect on the Area Municipalities involved;

(c) Construct the extension of Highway 403 from the junction of Highway 2 in Ancaster westward to Brantford;

(d) Provide additional road capacity in the Highway 5 corridor between the eastern Regional boundary and Highway 6 in a manner that has the least impact on existing and planned development within and in the vicinity of the Town of Waterdown; and

(e) Improve the level of service of highway connections from the City of Hamilton to the Cities of Kitchener, Waterloo, Cambridge and Guelph.

TRANSIT POLICY

It shall be the policy of Regional Council:-

9.3.1 To provide public transit at a level of service adequate to encourage its use within and between the urbanized portions of the Area Municipalities.

9.3.2 To review the boundaries of the Urban Transit Area from time to time, or at the request of any of the Area Municipalities, and in conjunction with all the Area Municipalities affected, with the objective of eventually including within the Urban Transit Area all portions of the Region developed at urban densities.

9.3.3 That the urban transit system in the Region be planned and operated in such a manner that:-

(a) Downtown Hamilton be the primary focal point of transit service and the level of service into the downtown area will be such that it will provide a degree of accessibility that is consistent with the downtown's role as a Regional Centre and will reduce the need for the operation of private automobiles into the downtown area;

(b) The sub-regional centre on the Hamilton Mountain be a focal point for transit service above the escarpment in Hamilton and Stoney Creek, with a major high speed transit connection between this centre and downtown Hamilton;

(c) The eastern sub-regional centre in the Region be a focal point for transit service to east Hamilton and that part of Stoney Creek below the escarpment. Direct transit connections between this centre and downtown Hamilton will be encouraged; and

(d) The municipal centre of each of the Area Municipalities or a centre designated by the Area Municipality, act as a focal point for local transit service within the Area Municipality.

9.3.4 To encourage commuter transit connections between downtown Hamilton and municipalities adjacent to the Region in order to make retail facilities, service facilities and job opportunities in Hamilton-Wentworth accessible to the residents of those municipalties. The financial involvement of the Region in the operation of these transit connections shall be limited and Provincial financial involvement will be encouraged.

9.3.5 That to improve the transit service in the urbanized area, where it is feasible, in order to provide a viable alternative to the automobile for the movement of people, and to reduce, where possible, the need for new road construction.

9.3.6 To consider preferential and/or exclusive bus lanes and other transit oriented improvements on arterial roads where demand warrants and their application is feasible.

9.3.7 That the planning of transit routes and intermediate capacity transit lines take into account the location of:

(a) Major employment and retail concentrations, universities and schools;

(b) Concentrations of high density residential developments;

(c) Terminals of inter-city transportation systems;

(d) Major medical and social service centres;

(e) Housing developments for the elderly, the handicapped and the socially disadvantaged; and

(f) Social amenities such as parks, theatres, museums, etc.

9.3.8 That a transit system with increased transit capacity receive a high priority in transportation planning in the urban areas of the Region, especially in the corridor connecting downtown Hamilton to the sub-regional centre on the Hamilton Mountain.

9.3.9 To develop public parking facilities in co-operation with the Area Municipalities where they are deemed necessary to support the operation of the urban transit system and encourage the Area Municipalities to adopt public parking policies that promote the use of transit.

9.3.10 To consider public transit as an integral part in the planning of major new residential development and all new commercial and employment centres in the urbanized portion of the Region. Accordingly, the Area Municipalities shall provide policy guidance through their Official Plans and, where deemed appropriate, secondary plans for such areas shall include provisions for safe, convenient and direct pedestrian access to the public transit system.

9.3.11 To encourage the Area Municipalities to allow for the concentration of high density residential development in the immediate proximity of major transit corridors and transfer points in the transit system, in order that the transit system is immediately available for the use of as many persons as possible.

9.3.12 That the Regional transit system incorporate, where feasible, special vehicle features and operational procedures that will make the transit system more accessible to elderly and handicapped persons.

9.3.13 To encourage the provision of a special transit service to meet the needs of those elderly and handicapped persons with the Region who are unable to use the regular public transit system. Regional support will be based on the recognition that this transit service should provide, where feasible, access for this segment of society, in an efficient manner, to medical and educational institutions, and places of employment as well as to personal shopping, social and recreational functions.

9.3.14 To encourage the Provincial Government, through the Ministry of Transportation and Communications, to initiate and coordinate with the Regional Municipalities of Halton and Hamilton-Wentworth, the expansion of inter-regional commuter transit between the City of Hamilton and the City of Burlington, in order to serve the commuter travellers into the City of Hamilton from the City of Burlington and points further east.

9.3.15 To consider the use of existing rail lines and railway rights-of-way when planning for inter-regional transit connections between points in Hamilton-Wentworth and surrounding areas.

In particular, Sections 9.2.9 (b) and (c) describe the project now under consideration, while other policies describe the special requirements to be considered in the design and construction of such roads. Section 9.3 establishes policies for the maintenance and improvement of the public transit system.

Mr. Schweinbenz agreed with the evidence of Mr. Gartner and referred to the establishment of priorities as in Section 9.2.12. He also referred to Sections 9.2.22 and 9.3.4 to indicate the co-operation required by Provincial authorities for this project.

Mr. Schweinbenz described actions taken or completed by the Region as a result of the approval of the Official Plan, notably the setting of five levels of priorities and completion of certain major works. The three major works are:-

(1) Burlington Street East (completed)
(2) The subject road
(3) Burlington Street West (sometimes called the "Perimeter Road")

In 1979, Council had determined that the first priority would be Burlington Street East, the second priority would be the subject road and the third priority would be the Perimeter Road. The first has been completed, the second is the subject of this hearing, and the third is only in its conceptual stage and has no status yet in terms of budget commitment.

With respect to public transit, Mr. Schweinbenz reviewed again the takeover of the transit system by the Region and described the 1983 five year strategic plan, as it seeks to implement the transit policy of the Official Plan, as stated in Section 9.3 of the Official Plan. The focal point of the transit system is the Downtown Hamilton Area which is the major destination within the system. Of necessity, the system then must focus on crossing the escarpment. In reviewing its priorities, Council established certain criteria related to an acceptable level of service. Council rejected a Provincial offer to provide an Intermediate Capacity Transit System and opted instead for an improved express bus system. Such an improved system would require some variation of the proposed new road because Council rejected the concept of major widenings of the existing road system. Numerous minor changes and improvements have been initiated in an attempt to increase public use of the system and thereby support the transit policy of the Official Plan.

With respect to staging of development, as shown on Map No. 7 of Section 16 of the Official Plan, Mr. Gartner referred to the large block of land in the Saltfleet area, primarily owned by the Ontario Land Corporation.

Section 14.4.5 of the Official Plan states:-

> "14.4.5 The Stage 2 area of Map No. 7 in Stoney Creek will be redesignated Stage 1 (without amendment to this Plan) when Regional Council's Plan for providing additional appropriate north-south transportation capacity across the Niagara Escarpment has received all the necessary Provincial approvals and financial commitments to allow construction".

In other words, until the new road is approved, that area will be under a severe development constraint.

Under cross-examination, it was determined that Dr. Coleman had two separate and distinct involvements in this proceeding. In 1975 and 1976, as a consultant retained by the Hamilton Region Conservation Authority, he studied and reported on Environmentally Sensitive Areas in the whole Region, and that work was used by the Conservation Authority as input to the Official Plan process. Then in 1979 up to the present time, he was retained as part of the consulting team acting for the Regional Municipality to prepare the environmental assessment and related matters now before this Board.

Under cross-examination, Mr. Schweinbenz said that a project such as this would not likely proceed without financial assistance from the Province. Such financial assistance would only be forthcoming if all requirements were met with respect to the Environmental Assessment, including examination of all possible alternate routes, e.g. the Red Hill

Creek Valley. Mr. Schweinbenz was cross-examined at length with respect to meeting the transit policies of the Official Plan by some means other than the construction of the proposed road, but that cross-examination did not produce anything of assistance to the Board.

Mr. Gartner was cross-examined for two days with respect to all his previous evidence. Much of that time was taken up by submissions of counsel related to production of various documents and the relevance of those documents in these proceedings.

Mr. Gartner said he had never been asked to state his professional opinion to Council with respect to the possible location of the proposed road in the Valley. In response to such a direct question in cross-examination, he said it was his feeling (at page 2635 of the record) that there is a necessity to provide a high level of transportation access to the mountain with a ring road connection between the Queen Elizabeth Highway and Highway 403, and the Valley is the most reasonable location for such a facility. Such a project, with sensitive design, can be done with minimum disruption to the Valley while at the same time enhancing the Valley's potential for public use. He said it is not unusual to allow for trade-offs in such a situation, particularly since the Valley is not in a pristine state, and trade-offs are necessary to accomplish the Region's objectives as expressed in the Official Plan. He has walked over the route proposed for the road and is satisfied with his now stated opinion.

Mr. Gartner confirmed that when the Official Plan was adopted by Council in June, 1980, the projected population of 550,000 for the year 2001 formed the basis of the plan. The reprojection was not done until 1981, and, therefore, no other information was available in June, 1980.

Exhibit 79 is the City of Hamilton Official Plan and it was adopted by City Council on May 11, 1982, and partially approved by the Minister on June 1, 1982, some portions being deferred, including those policies related to the subject road. Mr. Gartner said again that the Regional plan takes precedence over the City plan, and the City plan is required, by statute, to conform to the Regional plan which is fully approved. Counsel agreed with that statement of Mr. Gartner.

The fifth witness panel consisted of Murray Main and Keith McLean. Their evidence related to traffic issues and capacity.

Murray Main is professional engineer who has been in the employ of the City of Hamilton since 1961 and is presently acting traffic commissioner. Keith McLean is a professional engineer and is an associate and chief traffic engineer for DelCan Limited (the prime consultant in this project).

From 1961 to 1968, Mr. Main was an assistant traffic engineer for the City of Hamilton; from 1968 to 1983, he was the City's director of traffic engineering; and since 1983, he has been acting traffic commissioner. His evidence is, therefore, supported by some twenty-four years of experience in this area of the City's operations.

Mr. McLean is widely experienced in traffic and transportation matters as a consultant who has carried out numerous projects in Canada and other countries. From 1957 to 1970, he was employed by the City of Ottawa in various positions leading to that of director of traffic engineering, and from 1970 to 1974, he was director of traffic engineering services for the Regional Municipality of Ottawa-Carleton. He is recognized by the Ministry of Transportation and Communications as an expert in the area of traffic capacity analysis and has conducted numerous seminars in that field for the Ministry. He is also widely experienced in neighbourhood traffic management.

Mr. Main's evidence was directed to four distinct areas:-

(a) History and overview of roadway improvements,
(b) Growth of traffic crossing the escarpment in Hamilton,
(c) Problems in Hamilton related to truck traffic, and
(d) His assessment of how the proposed new road will relieve these problems.

Mr. Main said the City's traffic department was established in 1950 to consolidate and co-ordinate all matters related to vehicular traffic which previously were carried out by a number of City departments. In 1956, as traffic problems increased, the City retained the consulting firm of Wilbur Smith and Associates to study and report on traffic matters. Exhibit 80 is a map which shows the various streets now used as crossings of the escarpment within the City. Mr. Main described the history and evolution of those projects to their present state. He entered Exhibits 80A, 80B and 81, and described numerous projects of roadway improvements which have been completed over the past twenty years with a view to improving the movement of traffic in Hamilton. Exhibit 82 shows numerous projects completed for the channelizing of arterial street intersections, again to assist the movement of traffic. Exhibit 82A shows a system of one-way streets, again used to assist the movement of traffic. These included part-time one-way operations for some traffic routes crossing the escarpment, whereby the direction of traffic flow would be reversed for the morning and evening rush hour traffic volumes in an attempt to provide needed additional capacity without physical roadway widening. There is no scope left to expand the one-way street system. Other improvements included removal of street parking to off-street parking lots ... within the City, there are 238 kilometres of arterial streets and parking has been removed from both sides of 206 kilometres and one side of 24 kilometres. All of those improvements, supplemented by zones of computer-controlled signals, signs and pavement markings have combined to increase greatly the safety element associated with traffic movement.

Mr. McLean said that, in his opinion, the City has used up all the principal traffic management measures available to it to make maximum use of the available capacity.

The City has a continuing program of monitoring traffic flow both by manual counting at intersections, and automatic counting at free flow locations. This information becomes the data on which recommendations are made for improvements to traffic flow. Exhibits 83, 84, and 84A show this data and a trend analysis. Exhibit 84 specifically shows the traffic growth across the escarpment from 1966 to 1983.

Mr. Main gave lengthy evidence related to the problems associated with truck traffic in Hamilton with the assistance of numerous exhibits, including Exhibits 85 to 105, both inclusive. He described the system of truck routes using the arterial streets through the City. Associated with truck movements are problems related to noise, vehicle size, brake failure, and movement of hazardous goods. It is, therefore, desirable to remove as many as possible truck movements from the urban street system while still recognizing the necessity of trucks for the movement of goods within the City.

The Environmental Assessment Submission (Exhibit 58, page 3-15) contains a set of guidelines for siting truck routes. Mr. Main reviewed those seven guidelines and concluded that the truck route system in Hamilton does not even begin to comply with any of the guidelines.

With respect to the impact of the proposed new roadway on problems related to truck movements, Mr. Main described with the aid of Exhibits 14B, 14C, 104 and 105, various options which would become available with the proposed new road in place. Some existing truck routes would become redundant, and there would be a high attraction of trucks to the new road. Such a transfer of truck movements would serve to mitigate in part some of the present problems related to noise, vehicle size and brake failures, and also would permit the truck route system to conform to those guidelines previously referred to on page 3-15 of Exhibit 58. In particular, the proposed new road would totally conform to those guidelines.

Keith McLean said that "Capacity is defined as the maximum number of vehicles that have a reasonable expectation of passing over a given roadway section within a defined period of time, normally taken as one hour, under the prevailing roadway geometrics, traffic control regulations and traffic conditions". In this context, capacity is considered to be the "maximum operational capacity". He described the three elements named in the definition, which influence capacity and how those elements affect capacity. A traditional base value for capacity is considered to be 1,800 vehicles per hour (or one vehicle every two seconds), but that base value may fluctuate depending on the influence of the three noted elements (roadway geometrics, traffic control regulations, and traffic conditions).

Capacity determination is something that has evolved over a lengthy period of time, but most of the significant research has been done in the past ten years. The first published methodology was the 1950 Highway Capacity Manual, but it was in 1965 that the "Level of Service" concept was developed, as shown on Exhibit 106. The most recent published research has retained the Level of Service concept, but also uses a modification known as "Volume/Capacity Ratio", as shown on Exhibit 107. This has resulted in the use of planning level capacities which tend to be lower than operational level capacities. Further recent research in Canada by the Institute of Transportation Engineers has now been circulated in the form shown in Exhibit 108, whereby the level of service concept is modified by slightly different factors, but essentially the result is the same as using the "Volume Capacity Ratio" modification.

After considering the implications of the various methodologies, it is Mr. McLean's opinion that the subject undertaking should properly be considered at "Level E" with a factor of 0.9, as per Exhibit 107.

Exhibit 109 is a compilation of drawings which shows the details of each existing escarpment crossing from Highway 403 in the west to Highway 20 in the east. This exhibit is also shown on a reduced scale as Figures 5 and 6 in Exhibit 57. Figure 11, in Exhibit 57, is a reduced scale map showing the three screen lines (East, West and Central) with their volume capacity relationships. The screen lines are consolidations of the various escarpment crossings.

Mr. McLean reviewed in detail his analysis of each escarpment crossing. Exhibit 110 shows, in summary form, the results of his findings for each crossing and each screen line. The maximum available capacity for all crossings is 18,000 vehicles per hour. When reduced by a factor of 0.9, the operational capacity becomes 16,200 vehicles per hour. The present maximum volume is 12,200 vehicles per hour, and, therefore, the present volume capacity ratio is 0.75. Exhibits 111 to 141, both inclusive, are photographs and plans of the various crossings used to show actual conditions existing today.

Mr. Main agreed with Mr. McLean's methodology and calculations, although he believed the present operational capacity of 16,200 vehicles per hour may be relatively conservative.

With respect to traffic effects on people, counsel put the following question to Mr. McLean, "In your view, what happens in residential areas as roads approach capacity?" Mr. McLean's answer in part, "There is a wealth of evidence to indicate that when an arterial road system becomes congested, because the demand on the roads is approaching its capacity, people tend to seek out alternative routes, and invariably these routes pass through residential areas leading to such problems as noise, dust, pedestrian safety, and lowering of property values". Mr. Main confirmed that such reactions had been experienced in Hamilton, and usually, this leads to requests for such thing as stop signs, speed bumps and one-way streets to try and preserve the residential areas.

Mr. Main was cross-examined at great length, but his evidence was not changed by that cross-examination. Counsel introduced a number of documents, some of which were not familiar to Mr. Main.

Exhibit 145, "The Radbone Report" concluded that the Red Hill Creek Valley was the only effective solution at reasonable cost for the proposed road construction, but there would be severe damage to the natural environment. The author of the report was not questioned with respect to his findings. Mr. Main agreed with the first part of that conclusion, but could offer no opinion on damage to the natural environment.

The cross-examination of Mr. McLean merely confirmed that his involvement in the subject proceedings was limited to a study of the capacity of existing escarpment crossings, resulting in the information contained in Exhibit 110.

Nothing of significance arose during the re-examination of these two witnesses.

The sixth panel consisted of only one witness, John Barr. Mr. Barr is a professional engineer, having graduated from the University of Waterloo in 1970, with specialization in transportation and transportation planning. He has also completed some post graduate work in transportation planning, statistics, management sciences, operations research, linear programming, and computer analysis. Since 1974, he has been employed by the Regional Municipality of Hamilton-Wentworth; for the past six years as manager of transportation and research (now the Strategic Planning Section) in the planning and development department, where his immediate superior is John Gartner. After graduation and before 1974, Mr. Barr had been employed firstly, by the Ontario Ministry of Transportation and Communications and, secondly, by the University of Waterloo and Mohawk College. He has extensive experience in the field of transportation modelling and analysis. He was involved in the preparation of the Regional Official Plan transportation policies.

Mr. Barr introduced the first of a number of computer models used by the Region in the course of these proceedings, that being a transportation model.

At this point in this decision, the Board believes it might be beneficial for the Board to make a statement with respect to the manner in which the Board has considered this evidence. (These remarks can also apply with respect to other evidence throughout these proceedings). Mr. Barr's evidence-in-chief required one hour of hearing time, during which he introduced Exhibits 149 to 168, both inclusive. His cross-examination by Mr. Turkstra required almost two whole days of hearing time, during which he introduced Exhibits 169 to 174, both inclusive. Mr. Barr's evidence is concerned wholly with the forecasting of travel demand by the use of a computer model. This Board accepts the use of such a model for the tasks assigned and recognizes Mr. Barr as an expert in this field of transportation modelling. His total evidence and cross-examination is contained in Volumes 21, 22, and 23 of the record. That evidence is very concentrated and, at times, complex, although his final conclusions and opinions can be stated in simple terms. The Board has thoroughly studied this evidence and has concluded that no useful purpose can be served by a detailed review of that evidence in this decision. Therefore, expressed in crude language, the Board has been ruthless in its condensing of that evidence herein.

Commencing at Page 3875 of Volume 21 of the record, Mr. Barr has described the Hamilton-Wentworth model and its operation. Essentially, the Region's model is the same as that used by Ontario's Ministry of Transportation and Communications, with certain refinements. The model is basically a set of mathematical equations, inputted with a large amount of information which is then analysed and modified as required by the program so as to provide output in terms of a measure of traffic demand. In terms of Hamilton-Wentworth, the study area includes Burlington because of the large flow of traffic between Burlington and Hamilton-Wentworth. The output of the model is a traffic demand for a peak hour, that being the period of maximum demand for transportation movements. The Hamilton-Wentworth model, as used here, operates through five basic steps as follows:-

(a) Calibration
(b) Validation
(c) Forecast of mature state
(d) Forecast of year 2001
(e) Testing the model

Exhibit 153 contains much of the basic data required for the model and is supplemented by Exhibit 154 and others, all of this data being used to "mimic" conditions in Hamilton-Wentworth. The best available land use information was 1971 information. Exhibit 154 explains how that information was used to validate the model. Because the model had a tendency to over-simulate, it was necessary to make certain adjustments. Mr. Barr, in his professional capacity, accepts full responsibility for any judgment calls necessary to make the required adjustments.

The first model run produced a mature state forecast, which is a representation of the designations contained in the Regional Official Plan with its population forecast of 550,000. That projection is a demand for 21,300 vehicles crossing the escarpment southbound in the peak hour.

The model run for the fourth basic step produced a forecast for a revised population of 445,000 in the year 2001. Exhibit 161 shows that demand to be 19,400 vehicles crossing the escarpment southbound in the peak hour.

The final step in the process was to include certain variables to produce a forecast under "what if" conditions, i.e. changes in employment levels, changes in population distribution, and changes in public transit usage. Exhibit 167 shows the combined effect of these changes, whereby travel demand is projected to be 16,700 vehicles crossing the escarpment southbound in the peak hour, again, at a population of 445,000 in the year 2001. Those three variables are, in Mr. Barr's opinion, the key variables that influence the travel demand across the escarpment. He did not think any other variation in model output was necessary because he did not feel that there were any other factors that really could influence future travel.

Exhibit 58 (the Environmental Assessment Submission) was not used by Mr. Barr, but that document contains, in Table 3.4, Page 3-25, a summary of the model projections, as Mr. Barr provided the information to Mr. Turvey, the prime consultant on this project and the author of most of Exhibit 58. Appendix B of Exhibit 58 is a general description of the travel demand forecasting procedure.

Although Mr. Barr had not heard all of the evidence of Mr. McLean, he agreed with Mr. Turkstra, under cross-examination, that his projections should be compared to Mr. McLean's stated capacity so as to determine the extent of the deficit of capacity for the year 2001. In questioning Mr. Barr, Mr. Turkstra used the figure of 18,000 as Mr. McLean's stated capacity. Although it went undetected at that time, it should be noted that Mr. McLean's opinion was that operational capacity was 16,200 vehicles per hour when the calculated capacity of 18,000 was modified by 90 per cent to provide a Level of Service "E". The Board, therefore, takes a different view than Mr. Turkstra of the results of that part of his cross-examination.

As previously stated herein, this cross-examination was quite lengthy, and there is a simple explanation for that. The studies and documents used by Mr. Barr to develop his input for the model were extensive, complicated and complex. Therefore, Mr. Turkstra felt it necessary to review those documents thoroughly, as well as the methodology used by Mr. Barr and his staff. As a result of the lengthy cross-examination contained in Volumes 22 and 23 of the record, the Board is satisfied that Mr. Barr's evidence should stand, as summarized in Table 3.4 of Exhibit 58.

The undertaking proposed herein by the proponent is subject to the requirements of the Environmental Assessment Act (R.S.O. 1980, c. 140) and that statute states, in part:-

> "5.--(1) The proponent of an undertaking to which this Act applies shall submit to the Minister an environmental assessment of the undertaking and shall not proceed with the undertaking until,
>
> (a) the environmental assessment has been accepted by the Minister; and
>
> (b) the Minister has given his approval to proceed with the undertaking.
>
> (3) An environmental assessment submitted to the Minister pursuant to subsection (1) shall consist of,
>
> (a) a description of the purpose of the undertaking;
>
> (b) a description of and a statement of the rationale for,
>
> (i) the undertaking,
>
> (ii) the alternative methods of carrying out the undertaking, and
>
> (iii) the alternatives to the undertaking.
>
> (c) a description of,
>
> (i) the environment that will be affected or that might reasonably be expected to be affected, directly or indirectly,
>
> (ii) the effects that will be caused or that might reasonably be expected to be caused to the environment, and
>
> (iii) the actions necessary or that may reasonably be expected to be necessary to

prevent, change, mitigate or remedy the effects upon or the effects that might reasonably be expected upon the environment,

by the undertaking, the alternative methods of carrying out the undertaking and the alternatives to the undertaking; and

(d) an evaluation of the advantages and disadvantages to the environment of the undertaking, the alternative methods of carrying out the undertaking and the alternatives to the undertaking.

7.--(1) Where an environmental assessment of an undertaking is submitted by a proponent to the Minister, the Minister,

(a) shall cause a review of the assessment to be prepared.

8.-- The Minister, in determining whether to accept or to amend and accept an environmental assessment shall consider the purpose of this Act, the environmental assessment submitted to him, the review thereof, the written submissions, if any, made with respect thereto, any reports required by and submitted to him, and any further review that the Minister has caused to be prepared.

The Environmental Assessment Act (R.S.O. 1980, c. 140) then details how an environmental submission comes before the Environmental Assessment Board, and The Consolidated Hearings Act, 1981, (S.O. 1981, c. 20), then details how this particular submission is now before this particular Board.

After the Regional Municipality of Hamilton-Wentworth, as the proponent, had determined to proceed with this undertaking, an organization was established to proceed with the environmental assessment process. Working down from Regional Council, the organization was basically:-

(a) A Steering Committee composed of the elected members of Council and certain staff advisors,

(b) A Working Committee composed of certain Regional staff members together with representatives from other interested public bodies, and a team of consultants as advisers,

(c) A team of consultants engaged to complete the professional activities required to comply with statutory provisions.

DeLCan Limited, consulting engineers and planners, were engaged by the Region as the prime consultants in this process, and other consultants were engaged, as required. The team of consultants was headed by Dale Turvey, associate and chief transit planning engineer for DeLCan Limited, and Mr. Turvey was the principal witness who gave lengthy evidence as part of the seventh witness panel in these proceedings. Other members of this witness panel are: Robert Lehman, Heinz Schweinbenz, and Derek Coleman. Exhibit 58 is Volume I, Environmental Assessment Submission, and Exhibit 57 is Volume II, Environmental Assessment Submission. These two documents are the basic submission respecting environmental matters. Mr. Turvey is the principal author of those documents.

The curriculum vitae for each witness is detailed in Exhibit 10. The Board has no hesitation in accepting these witnesses as experts in their various fields of practice.

The evidence of the previous witness panels already reviewed herein, was basic to the decision made by the Regional Council to proceed with this undertaking. Therefore, of necessity, that evidence supports, and is incorporated into the four phase reports (Exhibits 179, 179A, 179B, 179C, and 179D). Mr. Turvey referred to that evidence many times during the course of his evidence.

The evidence, including cross-examination, of this witness panel occupied ten hearing days during which time 64 exhibits, numbered 176 to 239, both inclusive, were entered. Many of these exhibits are large scale reproductions of various maps, charts, and tables contained in Exhibits 57, 58 and others.

On December 6, 1977, Regional Council formally approved the "Mountain East-West and North-South Freeway Study", and by December 20, 1977, General Terms of Reference were approved for the project. These actions are detailed in Exhibit 181.

Exhibit 178 is a Summary of General Terms of Reference and is reproduced here as follows:-

"SUMMARY OF
GENERAL TERMS OF REFERENCE

STUDY ORGANIZATION:

- Study Team
  - Working Committee
  - Consultant
- Steering Committee

STUDY AREA:

- North-South Corridor
- Mountain East-West Corridor
- Examine expansion of present roadways

PUBLIC INVOLVEMENT:

(a) involve 3 groups

- Municipal Councils
- Organized Interest Groups, and
- General Public

(b) place major emphasis on information dissemination

PHASING OF ANALYSIS:

Phase 1: Confirm requirement for new road construction

Phase 2: Examine reasonable alternatives and identify viable alternatives

Phase 3: Detailed evaluation of viable alternatives

Phase 4: Functional planning of selected alternative"

DeLCan Limited was appointed as a prime consultant, with Mr. Turvey as the project manager. His work commenced in January 1978. Exhibit 176 is a very basic summary of that work then undertaken and the evidence given here by the seventh witness panel. That exhibit is reproduced here as follows:-

"CONTENT OF PRESENTATION
ALTERNATIVES AND EVALUATION

- Description of Work Program
    - Schedule of Work Activities
    - Relationship to Study Phases
    - Relationship to Environmental Assessment Documentation
- Consultant's Terms of Reference
- Study Process, Organization and Reporting
- Development and Evaluation of Alternatives
- The Public Involvement Program
- The Approvals Process"

It is immediately evident, from even a brief examination of the hearing record, that the evidence of this witness panel is very lengthy and complex, at times cumbersome, but certainly very significant to the eventual outcome of this hearing. As the evidence was presented, numerous exhibits were entered. Exhibit 177 shows the interaction between: the major activities, the study phases, and the environmental assessment documentation, together with the applicable time frames up to the completion of the "Supplementary Environmental Assessment Submission" in November 1983. That document is Exhibit 180 in these proceedings. Exhibit 186 is an overview of the evaluation process, which culminated in the selection of Alternative 2, as the preferred route for a new road. The studies for each of Phases 1, 2, 3 and 4 were entered as Exhibits 179A, 179B, 179C and 179D respectively.

The Phase 1 Report (Exhibit 179A) is entitled "Future Road Needs and Data Collection" and included the following:-

- a review and updating of travel demand forecasts,
- the assembly and analysis of all available data related to the transportation system, the social/cultural environment, the economic/financial environment and the natural environment,
- an analysis to establish future deficiencies in the road network,
- the development of evaluation procedures, and
- a public information program.

It can be readily seen that the work of the consulting team and the working committee, therefore, relied heavily on previous work done as part of the Official Plan process and the traffic capacity and demand findings described earlier by Mr. Main, Mr. McLean, and Mr. Barr.

As previously noted, the evidence of this witness panel is so lengthy that this decision will not review all of that evidence. Mr. Turvey reached the opinion that the present system of escarpment road crossings in Hamilton will reach capacity sometime in the early 1990's, and by the horizon year 2001, there will be a severe capacity deficiency equivalent to a four-lane freeway or an eight-lane arterial road. It is also his opinion that the north-south and east-west portions of any future roadway cannot function properly as separated road systems, but should be considered as one integrated transportation system. Mr. Lehman has studied the impact of such a system on the social environment, and Dr. Coleman has studied the impact of such a system on the natural environment. They are both satisfied that the proposed system can be constructed in such a way as to successfully mitigate and overcome any adverse impacts on the total environment. Their involvement in the project became more visible during subsequent phases of the study. Mr. Schweinbenz served as chairman of the Working Committee during this project, and he confirmed that the Working Committee was satisfied with the study process and had recommended accordingly to the Steering Committee. Therefore, the Phase 1 Report, in the form of Exhibit 179A, was reported to the Working Committee in June 1978 and was subsequently approved by the Steering Committee.

Table 1.1, at pages 5 and 6 of Exhibit 179A, contains a Summary of Findings and Recommendations, which, when adopted by the Steering Committee in June 1978, authorized the commencement of Phase 2.

At the commencement of the evaluation process, the study team considered the impact of transportation policies, as shown in Exhibit 187, and that consideration evolved into Exhibit 188, a grouping of transportation strategies into distinct transportation alternatives. As shown on Exhibit 188 three alternatives were defined as: "No action", "Minor", and "Major". These three alternatives are shown on Exhibit 186 as the beginning of the evaluation process. The three alternatives were described in detail by Mr. Turvey, (Record, Volume 24, Page 4754). Exhibit 201 is a Summary of the Assessment of the three alternatives. The evidence of Mr. Turvey, supported by the earlier evidence of Mr. Barr, clearly showed that the "No action" and the "Minor Alternatives" would not respond adequately to the needs forecast for the year 2001 by the transportation model, even when using the updated population projection of 445,000.

The Phase 2 Report, Exhibit 179B, is entitled Preliminary Evaluation of alternatives. A broad general corridor, the "Major Alternative" was defined for both the north-south and the east-west direction, as shown on Exhibit 197, and within that corridor, some fifteen alternative routes were developed. Following a comprehensive evaluation process, as described in the Phase 2 Report, the fifteen alternatives were reduced to six alternatives, to be further studied in Phase 3. Such a recommendation was approved by the Steering Committee in January 1979.

The process of evaluation was carried out in accordance with the guidelines of the Ministry of the Environment. The Environmental Assessment Submission, Exhibit 58, contains much of the same evidence found in the four phase reports, but in Exhibit 58, the information was presented in slightly different format for purposes of conformity to the requirements of the Environmental Assessment Act. Although entered as Exhibit 58, this document was in fact prepared in December 1982, long after the conclusion of Phase 4.

With the completion of Phase 2 in January 1979, the list of alternative routes for the "Major Alternative" was reduced to six, and those six alternatives became the subject of a detailed impact assessment and evaluation during Phase 3 of the study, with a view to recommending one preferred alternative.

The scope of the work included the following:-

(1) The assignment of 1986 and 2001 vehicle volumes to highlight possible differences in staging requirements. Included in this analysis were further investigations to establish the travel time accessibility differences and the compatibility of each of the alternatives with the adjacent arterial street system.

(2) The refinement of the alignment and profiles for the alternatives. The operational characteristics, construction and property costs were established for each alternative.

(3) A detailed impact assessment of each of the alternatives.

(4) A public involvement program to allow the public to review and comment on the impact assessment.

(5) A detailed evaluation to provide the basis for a recommendation regarding the preferred alternative.

All of the foregoing is detailed in Exhibit 179C, supported by various other exhibits, and was the subject of lengthy evidence by this witness panel. Two recommendations flowed from this Phase 3 of the study:-

> "(1) The Study Team recommends Alternative 2 be selected for detailing in Phase 4, as it is believed this alternative is the least disruptive to the community and provides the best opportunities to achieve the desirable objectives for growth and development in the Region. Opportunities exist to mitigate some of the undesirable effects of construction, particularly in the Red Hill Creek Valley.
>
> (2) Further, the Study Team recommends that property be protected within the east-west alignment to allow the eventual upgrading of the arterial roadway to a freeway to minimize community disruption when additional roadway capacity is needed."

Those two recommendations were adopted by the Steering Committee on June 14, 1979.

In reaching those recommendations, the Study Team stated at page 31 of Exhibit 179C:-

> "3.4 Conclusion
>
> In a comprehensive study such as this, the final decision is never based on an individual opinion. A great many factors, which are often conflicting, must be considered. The multidisciplinary scope of the study together with the participation of the public has

> produced a sound recommendation on a route. It is sound because all feasible alternatives have been examined, and the various environmental, social and economic impacts have been considered.
>
> In summary, the Study Team recommends Alternative 2 as it is believed it is the least disruptive to the community and provides the best opportunity to achieve the desirable objectives for growth and development in the Region. Opportunities exist to mitigate some of the undesirable effects of construction, particularly in the Red Hill Creek Valley. Significant additional costs over and above normal construction have been included to assist in maintaining a social and environmental standard demanded by the public."

At this point in this decision, the Board must observe that, in order for one to appreciate properly the nature and impact of the proposed undertaking, one should carefully review and understand certain material of record, in particular Exhibits 179C and 58. The requirements of the Consolidated Hearings Act are such that the evidence adduced at this hearing is common to all of the applications before this Board. We must again stress that the evidence is so intensive, concentrated and complex that that evidence can not and will not be extensively reviewed in this decision, but it is absolutely necessary to have a thorough understanding of the evidence in order to reach the decision herein.

At Volume 25, page 4845 of the Record, Mr. Turvey described the public involvement program. While the study was in progress, a series of three public information centres were conducted, so that, firstly, the public could be informed of the work in progress, and secondly, the Working Committee and the Study Team could receive reaction and input from the public.

Exhibit 212 is a large scale reproduction of Figure 25 in Exhibit 57, Preliminary Evaluation of Alternatives. This exhibit shows the details of the impact assessment for the various alternatives as studied and reported by Mr. Turvey, Mr. Lehman and Dr. Coleman, each of whom gave detailed evidence with respect to the assessment. In particular, in this part of the project, Dr. Coleman's work included exhaustive studies of the natural environment, all documented in various exhibits.

Mr. Schweinbenz, as chairman of the Working Committee, confirmed that the evaluation process had, in fact, proceeded as described by Mr. Turvey, Mr. Lehman and Dr. Coleman. Mr. Schweinbenz said that when it immediately became obvious that the six alternatives selected for more detailed assessment all involved the Red Hill Creek Valley, the Working Committee directed the Study Team to go back and investigate in greater detail the possibility of utilizing Highway 20, as the north-south corridor.

Appendix G of Exhibit 179C, supported by Exhibit 214, shows the in-depth study carried out to show that Highway 20 would not be a suitable alternative. Briefly, the right-of-way is too narrow, the area is too built-up, the land uses are too intensive, and the costs and possible impacts are too excessive.

Exhibit 215, Summary of Impact Assessment Short-listed Major Roadway Alternatives, is also found in Table 5.3 on pages 5-46 and 47 of Exhibit 58. Mr. Lehman, Dr. Coleman and Mr. Turvey reviewed in detail the methods used by them to analyse the impact of the listed sixteen factors.

At that point in the study, approximately mid-May 1979, the Working Committee held a lengthy series of public presentations to publicize the work in progress and receive input from interested ratepayers with respect to the six alternatives, now under consideration. This public involvement is described in Volume 26 of the Record, commencing at page 5211, and also in Section 7 of Exhibit 58.

Following analysis of the matrix contained in Exhibit 215, the six alternatives were reduced to four, and subsequently to two, and finally to one, that being Alternative 2. This program of reduction is illustrated by Exhibits 219, 220 and 221, all of which flow from Exhibit 215 at Volume 26, page 5218 to page 5234 of the record, Mr. Turvey explained how the reductions were accomplished. It was this part of the study process that resulted in the recommendation (previously noted herein) being adopted by the Steering Committee on June 14, 1979.

The Steering Committee, before making a recommendation to Regional Council, directed the Working Committee to conduct another round of public involvement. The Steering Committee also recommended that a recreational master plan for Red Hill Creek Valley be prepared as part of Phase 4, and that an environmental assessment document be prepared. These actions were confirmed by Mr. Schweinbenz.

At a special meeting of Regional Council, on July 18, 1979, various organizations and individuals were afforded an opportunity to voice their opinions on this project. A significant amount of public reaction continued to be received up to July 31, 1979. At that time, a Summary Report, in the form of Exhibit 239, was prepared and submitted to the Steering Committee.

This report, in concise form, reviewed the actions taken during Phases 1, 2 and 3, and concluded that proper recommendations had been made to the Steering Committee. On September 29, 1979, the Steering Committee so reported to Regional Council, and the Council approved all of the Committees' recommendations.

The final question to each of Mr. Turvey, Mr. Lehman and Dr. Coleman, was to seek their professional opinions as to the quality of the work completed up to and including Phase 3.

Dr. Coleman said that the work completed fully satisfies the requirements of the Environmental Assessment Act. Additionally, two matters, (a) the involvement of the public in the study process, and (b) the selection of an evaluation process for reaching the decision were both thoroughly dealt with by the Study Team although the Act is silent on both of these issues. Dr. Coleman has been involved previously in ten highway planning studies and ten environmental assessments, but the subject project had the highest degree of public involvement which he has experienced, including direct public access to the elected Council which made the final decision to proceed with this project. With respect to the evaluation process, this study employed an extremely large matrix and he is satisfied that the study has thoroughly examined all environmental issues.

This study was the third major road facility that Mr. Lehman has been involved with, and he said that this study was the most comprehensive of all those. He is satisfied that the work was complete and comprehensive in every way from the point of view of the social and economic effect.

Mr. Turvey agreed with the opinions of his two colleagues and it was also his view that the presence of elected representatives on the Steering Committee assisted the planning process, which he described as now being a current technique of assessment. Exhibit 223 is a copy of the notes used by Mr. Turvey in his evidence.

At the outset of cross-examination, it was agreed by both counsel and by the Board that Mr. Turkstra would delay his cross-examination of Dr. Coleman, until after Dr. Coleman had completed his further evidence to be given at some point later in the hearing.

The general style of cross-examination was that Mr. Turkstra chose to examine in complete detail the data and background information which the witnesses had used in preparing and presenting their evidence. This process led to the introduction of a further 16 exhibits, generally from number 224 to 239, both inclusive.

Appendix B of Exhibit 179B contains the report, Social Impact Analysis, prepared by Mr. Lehman, and Appendix E of Exhibit 179C contains the report, Detailed Assessment of Social, Economic Impacts, also prepared by Mr. Lehman. Extensive cross-examination did not change any of Mr. Lehman's original evidence.

Mr. Schweinbenz was questioned at length with respect to Exhibit 228, the Minutes of the Working Committee, of which he was the Chairman. In particular, he could not agree that pressure was exerted by the Ministry of Transportation and Communications to locate the proposed road in the Red Hill Creek Valley. It was his view that the study process required an evaluation of all available alternatives. When questioned as to the deletion of the minor alternative, Mr. Schweinbenz agreed that it was possible that there was no explicit resolution of the Committee on that matter. He also agreed that a significant portion of the rationale for this undertaking is the economic impact on the community, as stated on page 2-18 of Exhibit 58. He said he did not possess expertise in the field of economic development, and when such matters arose at the Working Committee he accepted the views of experts in the field.

Extensive cross-examination of Mr. Schweinbenz with respect to the Minutes of the Working Committee often led to questioning with regard to other matters, such as consideration of alternative rapid transit plans and public input into those plans. The Board considers such issues as not relevant to these proceedings.

Mr. Turvey was questioned extensively over a five-day period with respect to protection of the environment, public involvement, and other related aspects of the evaluation process. Mr. Turvey said the environmental assessment was done as a one-stage submission in a format recommended by the Ministry of the Environment. Exhibit 58 was essentially authored by Mr. Turvey, with editorial assistance by the rest of the study team. The cross-examination included a detailed review of the data collected in Phase 1, the evaluation process in Phase 2, and Analysis in Phase 3. Mr. Turvey's evidence remained unchanged.

In Volume 33 of the record, from page 6895 to 6897, Mr. Turvey agreed that the "No Action" alternative gave a travel time of 25 minutes from the Bayfront to the Saltfleet Community for the year 2001, as opposed to 22 minutes at the present time. It was suggested by counsel that the difference of 3 minutes, if it were to be saved, would be at a cost of building a freeway in the Valley, with the attendant impacts. However, Mr. Turvey stated his opinion that "clearly the rationale for this project has not been narrow in the terms of travel time. The point that is being made under the rationale is that this project is a response to a number of issues. The point that has been drawn out here is that at 2001 we have deficiencies on two of the three screenlines and the third screenline operating at a level of service "E" under the "Minor Alternative", and that to be put in a position to respond to the growth that is going to take place after the year 2001, definitely, it is going to get worse. So, to focus this whole project on a number of 3 or 4 minutes in terms of travel time between one specific area and another, I think, is significantly understating the rationale for this project".

Again, in Volume 33 at pages 6902 to 6903, Mr. Turvey confirmed Mr. Barr's testing of his model ... "That there is a roadway deficiency under the range of assumptions." This is confirmed on Exhibits 203 and 204.

In response to cross-examination by counsel for the Niagara Escarpment Commission, Mr. Schweinbenz said that the recreation master plan for the Valley, as prepared by Dr. Coleman had been approved by the Region as part of the total undertaking. Although the Region has no parks or recreation organization, Mr. Schweinbenz felt that administrative arrangements for the park could be established by agreement between the Region, the City and the Conservation Authority.

The eighth witness panel on behalf of the Region included Dale Turvey, Joseph Pavelka, and John Emery. The evidence of this witness panel included a detailed description of the proposed roadway and is essentially as presented in Section 6.1 of Exhibit 58, supported by Exhibit 57. In addition, Exhibits 241 to 276, both inclusive, were entered by this witness panel to show detailed layout plans and reports of various specific investigations related to the design of the roadway.

Mr. Pavelka is a professional engineer employed as manager of Transportation Engineering Services for the Regional Municipality of Hamilton-Wentworth. He graduated from the University of Toronto in 1971 and has had wide experience in highway design and construction with the Ministry of Transportation and Communications prior to joining the Regional staff. His curriculum vitae is contained in Exhibit 10.

Dr. Emery is a professional engineer, having graduated from the University of British Columbia in 1966 as a civil engineer, and in 1971 he earned his doctorate of philosophy degree in soil mechanics also from the University of British Columbia. He is a director and vice-president of Trow Ltd., a firm of consulting engineers specializing in soil mechanics and geotechnical engineering. He has had wide experience in his field, as detailed in his curriculum vitae found in Exhibit 10.

Mr. Pavelka and Dr. Emery are supporting witnesses to the principal evidence given by Mr. Turvey. Mr. Pavelka's evidence concerned the acquisition of the right-of-way for the new roadway, particularly the east-west portion, and the necessary works required on adjoining roads as a result of the construction. Dr. Emery's evidence concerns the geotechnical problems associated with foundations for structures and the roadway.

Because there had been a substantial recess in these proceedings, Mr. Turvey commenced his evidence by referring first to Exhibit 177, to indicate how this evidence fitted into the outline of work program. By way of review, he said that the Regional Council had approved the selection of Alternative 2 and had directed the Working Committee to proceed with Phase 4 to prepare a functional plan of the preferred option, to prepare a recreation master plan, and to prepare an environmental submission, these directions having been given in September 1979.

This work produced Exhibit 179D, the Phase 4 Report, the recreation master plan to be described by Dr. Coleman later in the proceedings, the two volumes of the environmental submission as in Exhibits 57 and 58 and the supplementary environmental submission entered as Exhibit 180. This witness panel is concerned with the Phase 4 Report.

Table 6.1, page 6-3 of Exhibit 58, shows the design criteria selected for the proposed roadway, consistent with the Ministry of Transportation and Communications' standards for urban freeways in Ontario. Exhibit 245 is a drawing showing a typical cross-section for the proposed east-west arterial road. Exhibit 246 is a drawing showing a typical cross-section for the proposed north-south freeway. Those two typical cross-sections form part of the design criteria. The arterial road requires a right-of-way varying from 61 to 91 metres in width, while the freeway requires a basic 91 metre right-of-way with additional land for interchanges. Exhibit 247 is a large scale reproduction of Figure 2 from

Exhibit 57 and shows the total undertaking in relation to the City of Hamilton. Figure 53 of Exhibit 57 shows projected traffic volumes for peak hour traffic at the Official Plan's projected population of 550,000. An examination of the traffic volumes shows that the north-south volumes (at 3,600 to 4,100) are practically double the east-west volumes (at 1,500 to 1,800), due to projected growth and development in the south easterly area, and from that flows the rationale for arterial east-west and freeway north-south.

The proposed total roadway is approximately 20 kilometres in length. In order to show the proposed design at an acceptable scale, Mr. Turvey has produced six current aerial photos with the roadway indicated thereon, the six photos in total showing the whole roadway. These were entered as Exhibits 248, 252, 257, 260, 262 and 267. The same basic information is shown, at a reduced scale, in the various figures contained in Exhibit 57. The proposed road commences at the intersection of Highway 403 and Mohawk Road and proceeds easterly across the mountain area on a line parallel to and approximately 200 feet south of Limeridge Road to the brow of the escarpment in the Albion Falls area. The proposed road then follows the Valley of the Red Hill Creek generally in a northerly direction and terminates at an interchange with the Queen Elizabeth Way at a location generally midway between Burlington Street and Highway 20.

As detailed in the record, commencing at page 7072 of Volume 34, Mr. Turvey described in detail the selected route of the proposed new road and various details of construction. He also entered numerous additional exhibits showing typical cross-sections and profiles at various locations to illustrate the relationship and impact of the proposed road on the existing built-up areas.

After Mr. Turvey's description of each panel, Mr. Pavelka described local road improvements that would be required to accommodate the proposed construction. Mr. Pavelka also described the rights-of-way acquired to date and proposed for future acquisition. His evidence is detailed in the record at the conclusion of each part of Mr. Turvey's evidence. No useful purpose would be served by reviewing all of that evidence in this decision, but again it is necessary to understand the evidence. One significant aspect of Mr. Pavelka's evidence relates to the right-of-way for the proposed road. He said that the right-of-way has been generally established for some years, and in recent years, planning for adjoining land uses has recognized the existence of the right-of-way. That is immediately seen by examination of the various plans and photographs entered as exhibits. Development in many places has occurred up to the limits of the right-of-way and street patterns have been established so as not to intersect the right-of-way. Exhibit 256 is a stated policy of City Council relating to such planning matters and directing development so as to recognize the right-of-way for the proposed new road.

Panels 1, 2 and 3 which are Exhibits 248, 252 and 257 respectively include the proposed 10 kilometre arterial roadway from Highway 403 to approximately upper Ottawa Street. It can be clearly seen that the previously noted criteria for development have been observed over recent years. Also, the right-of-way in this area has a basic width of 200 feet with an additional 50 foot easement on each side as required for noise attenuation and visual screening. It is, therefore, Mr. Turvey's opinion that such planning has reduced the impact of the future road to an absolute minimum.

Dr. Emery conducted an extensive geotechnical investigation of soil conditions along the whole route of the proposed road, and his detailed findings are contained in Exhibits 241 and 242. In Exhibit 244, he has summarized those findings, and it is his stated opinion: "From a geotechnical view point, the construction of the mountain east-west and north-south sections do not present any significant technical problems, given experience in the area with other transportation routes of similar type and scale. The escarpment crossing presents the greatest geotechnical challenge, however, the experience gained at Highway 20, Highway 403, and the Mountain Access routes confirms that the necessary construction can be successfully carried out".

Mr. Turvey described in turn Panels 4, 5 and 6 which are respectively Exhibits 260, 262 and 267. Mr. Pavelka described the necessary local road improvements required to accommodate the freeway construction. Dr. Emery repeated his previous opinion as being applicable to this part of the road as well.

Mr. Turvey said that the cost estimate for the proposed road was prepared in accordance with commonly accepted engineering practice for such projects and using 1982 dollars. Table 6.2 at page 6-27 of Exhibit 58 shows the total estimated cost for the project to be $123,915,000. A comparison with an index of construction costs maintained by the Ministry of Transportation and Communications shows that the cost estimate would be valid at September 1984, but subject to the same rates of inflation that affect all costs.

Figure 54 in Exhibit 57 is a map showing the proposed three stages in the construction program, and those are described in Exhibit 58, commencing at page 6-22.

Mr. Pavelka described the status of property acquisition for the right-of-way. For the north-south portion, almost all of the required property is in the ownership of the City of Hamilton. Some additional properties will be required for interchange construction at Queenston Road and at Barton Street. Exhibit 272 is a map showing the status of right-of-way acquisition for the east-west portion, and it can be readily seen that most of the required property is now owned by the Region. At the present time, the Region pursues a policy of acquiring the needed right-of-way by purchase on the open market. Since most of the east-west portion of the road is included in Stage 3 of the construction program, no firm policy has yet evolved with respect to accelerating land purchases, e.g. expropriation.

The stages of construction are as follows:-

Stage 1 - 5 years - $59,540,000 from Upper Gage Avenue to King Street.

Stage 2 - 5 years - $31,070,000 from King Street to north of Brampton Street

Note: From north of Brampton Street to the Queen Elizabeth Way is considered to be a project of the Ministry of Transportation and Communications.

Stage 3 - 2 years - $25,610,000 from Upper Gage Avenue to Highway 403.

Additional - Various - $7,695,000 Upgrading as required.

At the conclusion of the Phase 4 portion of the study, a further program of public involvement was carried out in June of 1980. The details of this program of public involvement are contained in Section 7 of Exhibit 58, commencing at page 7-11.

Under cross-examination, Dr. Emery said that he believed his two reports (Exhibits 241 and 242), together with his stated opinion constituted an adequate geotechnical response for design purposes in Phase 4. He was aware of the location of the Ottawa Street landfill site, but had no opinion regarding possible leachate from the site, his work being geotechnical and not hydrogeological. Similarly, with respect to the Brampton Street landfill site, he was only concerned with the geotechnical aspects of a possible conflict during construction of the road.

Mr. Pavelka, under cross-examination, said that the Region's direct involvement in the proposed construction terminated at Station 29 + 175, as indicated on Figure 50 of Exhibit 57. The balance of the work to the interchange at Queen Elizabeth Way was the responsibility of the Ministry of Transportation and Communications. It was his understanding that the environmental assessment of that portion of the work, including any possible effect by the Brampton Street landfill site, was the subject matter of the environmental assessment done in relation to twinning the Burlington Skyway Bridge. In other words, the proposed works shown on Figure 50 of Exhibit

57, although required to complete this project are not before this Board in this proceeding.

The cross-examination of Mr. Turvey did not produce anything not revealed by his evidence in-chief.

At the conclusion of the evidence given by the eighth panel, the Region's case proceeded by hearing evidence from individual witnesses, although Dr. Derek Coleman and Mr. Larry Thompson were sworn as a witness panel.

Larry Thompson is a professional engineer having graduated from the University of Waterloo with a B.A.Sc. in 1976, and an M.A.Sc. in 1979, in the field of civil engineering. He has since completed additional graduate studies in the field of hydrology and micro-computers, and has had experience as a consulting hydrologist. His evidence related to flood levels and the flows in Red Hill Creek and the use of computer models for flood plain mapping in the Valley. His curriculum vitae is contained in Exhibit 10.

Mr. Thompson's study and conclusions and recommendations are contained in his report dated November 21, 1983, which forms the major part of Section 2.3.D "Hydrology" of Exhibit 180, "Supplementary Documentation Environmental Assessment Submission". This work was done in response to concerns raised by the Ministry of Environment when the original Environmental Assessment Submission (Exhibit 58) was under review.

At the outset, Mr. Thompson briefly described a number of storm water management projects in which he has participated in the Hamilton area in recent years. He also explained, at page 8060 of Volume 39 of the record, the use of the terms "major" and "minor" in describing the characteristics of flow systems as determined by the use of computer models. His previous projects had received approval by the Hamilton Region Conservation Authority which has jurisdiction over the watersheds in the area. His work herein is concerned with the impact of the proposed freeway on peak flood flows and levels in the Lower Red Hill Creek.

In Exhibit 58, at Appendix A, Reference No. 27 indicates "Flood Plain Analysis, Red Hill Creek Valley, March 1979". Since that time more information has become available with respect to hydrology and Mr. Thompson's work now utilizes that additional data. Mr. Thompson described the area which contributes to the flow in the Red Hill Creek and the effect on that flow of further expected development (e.g., Heritage Green). He analysed the effect of barriers such as railway embankments and their effect on flows and storage areas.

Two computer models were used. The hydraulic model is known as HEC-2 and was developed by the U.S. Army Corps of Engineers and is used to determine flood levels. The hydrologic model known as SUBHYD-ROUTE was used to determine expected flows in a watershed in a given state of development in response to a given rainfall condition.

Exhibits 285, 286, and 287 are profiles showing the effect of various flow conditions as projected for various storm conditions, both before and after the proposed freeway construction.

Mr. Thompson's conclusions are stated at page 23 of his report, and his recommendations are as follows: (Reaches are shown on Map No. 1 of the report).

> "During final design of the expressway and its associated structures, it is recommended that:-
>
> (1) Attention be paid to minimizing the loss of effective flood storage along the valley, particularly in Reaches 709.1 and 711.1 where most of the impact of the expressway was found.
>
> (2) Consideration be given to creating compensatory storage in Reach 709.1 and elsewhere to help offset the impact of the expressway. From the topographic mapping of the area, it appears possible that a significant portion of the storage loss in Reach 709.1 could be regained. Minimizing storage loss and optimizing storage used in the final design phase will lead to lower flood peaks in the downstream reaches and thus help reduce the costs of the downstream structures.
>
> (3) The final channel and structures be designed to safely convey the design flows to be expected."

His opinion is that, with proper design and construction, there will be no significant adverse effect on flooding in the watershed.

Under cross-examination, Mr. Thompson said the nature of the proposed road construction would enlarge the openings through the railway embankments, thereby providing flood relief.

Counsel for the Hamilton Region Conservation Authority entered Exhibit 288, a copy of a letter dated March 27, 1984 from the Authority to the Regional Municipality. The letter refers to a meeting held on March 15 to discuss the Region's application to the Authority for permission to construct the freeway in the Valley. The letter then sets out certain hydrologic and hydraulic studies required to be completed and submitted to the Authority. Counsel for the Authority suggested that, with the proceeding now before this Board, the Region was now attempting to circumvent the Authority's jurisdiction. He agreed that if the final design of the freeway were to be subject to approval by the Authority, by reference from this Board, his concerns would be removed.

Counsel for the Regional Municipality argued that the Board should not, in effect, give the Conservation Authority a power of veto over any decision which the Board may reach in this matter.

Under further cross-examination, Mr. Thompson said that his SUBHYD model had been used by him on other projects which had been reviewed and approved by the Hamilton Region Conservation Authority and the Ministry of Natural Resources. Other models are available for other applications, but Mr. Thompson is satisfied that his model is a proper application here, although he admitted that his model had not been used for any other regulatory floodline project.

Although Dr. Coleman had given evidence earlier in these proceedings, the nature of the Region's presentation was such that he was called at this point to give evidence with respect to two matters: impact of the road on the natural environment, and impact of the road on the Valley as a recreational resource. Dr. Coleman entered Exhibit 277 "Proposed Recreation Master Plan", and Exhibit 278 "Background Information". A comprehensive summary of Dr. Coleman's work on this project is given in Exhibit 58, commencing at Section 6.2.9 on page 6-45. Exhibit 179B "Phase 2 Report", at Appendix C contains an exhaustive report entitled "Natural

Environment Impact Analysis" and Section 2.4 of that analysis relates to scenic resources.

Throughout the total length of the undertaking, Dr. Coleman has divided the area into four urban landscape visual units. He has extensively studied these units and assembled his data which is shown in the various exhibits. He has concluded that the proposed road would have low impact on the east-west area and moderate impact on each of the escarpment crossing, the Upper Valley and the Lower Valley. It is his opinion that those impacts can be mitigated as explained in the various recommendations which he has made, generally as shown on Map 11 of Exhibit 277. Those mitigation measures have been included as part of the estimate of the cost of the undertaking.

The study which led eventually to the preparation of Exhibit 277 was authorized in Phase 4 in March 1980, and Exhibit 277 as a report was presented to the Working Committee in January 1981. This study included a more detailed inventory and analysis of the Valley with respect to both environment and recreation. Fourteen environmentally significant features were identified, as described on page 7 of Exhibit 277. These are also described in Dr. Coleman's evidence commencing at page 7926 of Volume 38 of the record. In addition, Dr. Coleman described existing recreation facilities in and adjacent to the Valley, as well as the major points of access to the Valley. A study of the use of the Valley by citizens showed most of the use in the Upper Valley, and little or no use to the north of Barton Street. Of sixteen schools in the general area of the Valley, only two reported any use of the Valley by school classes.

From his study, Dr. Coleman drew six conclusions:-

(1) The Valley has a considerable potential for recreational use and at the present time that potential is not being realized.

(2) The City's present recreational policies are directed to more active recreation than passive recreation.

(3) The physiography of the Valley provides its greatest asset and liability.

(4) The proposed road would have a variable effect on recreation.

(5) In the area between Barton and King Streets, there is potential for greater recreational use without adverse impact by the road.

(6) To the south of King Street, the extensive area of the Valley would allow road construction without reducing the recreational activity.

All of the foregoing conclusions are described in more detail in Exhibit 277 at pages 17 and 18. These conclusions were used by Dr. Coleman in finalizing the proposed recreational master plan. The development of the proposed plan included input from the City and Region Planning Departments, the City Parks Department, the Conservation Authority, and the general public. The proposed plan is described in detail commencing at page 25 of Exhibit 277, and that description is explained in greater detail by Dr. Coleman's evidence commencing at page 7943 of Volume 38 of the record. As shown in Exhibit 282, the proposed road would occupy 157 acres of the 704 acres in the Valley. With the proposed recreation master plan, Dr. Coleman is of the opinion the road would have only moderate impact on the recreation potential of the Valley, and the total project would improve the recreation facilities of the City. He estimated the cost of implementing the recreation master to be in the area of between $2,800,000.00 and $3,200,000.00.

With respect to the natural environment, Dr. Coleman again reviewed the fourteen significant features previously inventoried. It is his conclusion that construction of the proposed road would have moderate impact on the natural environment, but the substantial nature of the Valley will still be retained. No existing rare plant species would be eliminated by the construction.

Exhibit 180 is "Supplementary Documentation, Environmental Assessment Submission", dated November 1983, and was prepared as a response to concerns raised by the various review agencies to the "Environmental Assessment Submission, December 1982", previously entered as Exhibit 58.

Appendix E of Exhibit 180 contains the detailed response prepared by Dr. Coleman with respect to concerns raised with regard to the natural environment.

The Ministry of Natural Resources, as a reviewing agency, were concerned with: (a) soil erosion and sedimentation, and (b) fish in Red Hill Creek.

The Hamilton Region Conservation Authority, as a reviewing agency, were concerned with: (a) the Red Hill Creek Marsh, (b) the possible loss of the Valley as a recreation resource, (c) the reduction of use of King's Forest area, and (d) the shortage of open space in East Hamilton.

Dr. Coleman carried out additional investigations and studies to respond to those concerns. His investigations are detailed in his evidence commencing at page 8293 of Volume 40 of the record, and also in Appendix E of Exhibit 180.

It is his opinion that soil erosion and sedimentation are matters which can be adequately controlled by proper design and construction procedures, and there is no concern with fish in the Creek.

He acknowledged that there would be severe impact to the Red Hill Creek Marsh, but as a result of widening the Queen Elizabeth Way, a separate project by the Ministry of Transportation and Communications. He agreed that the Lower Valley would essentially be lost to recreation, but it is not now highly used and has little potential. The Upper Valley, above King Street, is much wider and existing recreation areas will be protected and supplemented. Implementation of the proposed recreation master plan would ensure continued use of the King's Forest area, and he does not agree that there is a shortage of open space areas in East Hamilton. These responses are fully detailed in Section 4 of Appendix E, of Exhibit 180.

Exhibit 291 is a copy of an application to the Conservation Authority by the Regional Municipality as required by the Conservation Authorities' Act. This application was prepared by Dr. Coleman, and is intended to indicate the Region's formal application now before this Board under that statute.

Dr. Coleman was cross-examined over a lengthy period by Mr. Turkstra with respect to his data collection and analysis. Also, he was questioned about the possible effect of leachate from the Ottawa Street Landfill Site, but he had no expertise in that area and had not seen Exhibit 295 prior to this cross-examination. The lengthy time frame of the cross-examination included lengthy qoutations from various reports and exhibits, as well as numerous exchanges between Counsel and the Board. There was no change in Dr. Coleman's previously stated opinions.

Dr. Coleman was also cross-examined by Counsel for the Niagara Escarpment Commission. He agreed that the Commission's five proposed conditions, stated in the record commencing at page 8699E of Volume 41, would be acceptable and proper to apply to any permits required under the Niagara Escarpment Planning and Development Act.

Under re-examination, Dr. Coleman said the term "natural environment" as applied to the Red Hill Creek Valley should be qualified to "natural disturbed environment" compared to a typical residential subdivision. He described those disturbances as:-

> "There is an extensive history of land clearing and farming of the soil and now urban areas adjacent to the Valley and roads that cross it at a great many locations and the water quality is degraded by urban runoff and other factors so, the vegetation in the Valley, in the Valley bottom is that of disturbed areas and the Valley slopes are less influenced, and the wildlife within the Valley are species that accommodate being that close to residential areas."

In addition, he referred to the presence of various major public utility installations in the Valley.

He said that in the King's Forest area, the road will have only a very minor effect on the Valley, which could be reduced by mitigation measures. In the Albion Falls area the effect of the road would be positive because aesthetics would be improved by closing Mountain Brow Boulevard and Mud Street. Seventy-five per cent of the use of the Valley is in the King's Forest area, not including the golf course, or arena, or tennis courts. New pedestrian crossings of the Valley would be constructed as part of the road project, thereby improving access to the Valley.

With respect to erosion and sedimentation, it was Dr. Coleman's view that those matters were adequately reviewed in Exhibit 180, and should now properly be left for consideration at the time of final design of the project.

Dr. Alfred Lightstone is a professional engineer with extensive experience and qualifications in acoustics. His curriculum vitae is contained in Exhibit 10. His evidence is concerned with noise impact analysis and assessment, insofar as the proposed road may affect abutting residential land uses, and the mitigation measures which would be used to reduce that impact to acceptable levels. His findings are contained in Exhibit 298, and the details of his evidence are contained in Volume 42 of the record.

Dr. Lightstone was retained by the Study Team in late 1979 and his work was done in 1979 and 1980 as part of Phase 4 of the study.

Essentially, his work consisted of: establishing the existing noise environment, predicting the effect of the construction and use of the road, and recommending mitigation measures to reduce any adverse impact to levels within established criteria. His work was divided into two components: the east/west arterial road, and the north/south freeway.

Appendix A to Exhibit 298 is a publication of the Ministry of Housing entitled "Guidelines on noise and new residential development adjacent to freeways", and has been adopted as a Provincial Government Policy in this field. The objective for outdoor recreation areas is a level of Leq 24 of 55 dBA or less, and not more than an attenuated level of 70 dBA. Also applicable is Table 1 on page 27 of Exhibit 298, which contains detailed criteria published by the Ministry of the Environment and Central Mortgage and Housing Corporation.

Appendix C to Exhibit 298 contains the data collected to establish the existing noise environment, together with maps showing the locations studied and a description of the methodology used and an analysis of that data.

Appendix D to Exhibit 298 is a summary of traffic data provided to Dr. Lightstone by the Study Team. With the use of the Ontario Highway Noise Prediction Model, Dr. Lightstone was able to predict the future impact of that traffic on the abutting lands with respect to noise. Those predictions are contained in Tables 4, 5, 6, and 7 of Exhibit 298.

Section 5 of Exhibit 298 contains the analysis of required mitigation and his recommendations. Generally, mitigation is by means of earth berms and noise barriers, in locations and heights as required. The various roadway cross-sections, entered earlier as exhibits by Mr. Turvey, illustrate the use of those mitigation measures as recommended by Dr. Lightstone as being necessary to bring the effects of adverse noise impact within the limits of the stated criteria. Also, Dr. Lightstone has suggested that the use of "carpet seal" pavement will result in a 2 to 3 dBA noise reduction.

Extensive cross-examination and re-examination by both Counsel did not produce any change in Dr. Lightstone's evidence.

Dr. Fred Hall is a tenured professor at McMaster University in both the Department of Geography and the Department of Civil Engineering. He has been on that faculty since earning his doctorate in geography in 1972. His curriculum vitae is contained in Exhibit 10. Over the past ten years, he has conducted numerous research and consulting projects in the area of "Community-related effects of noise".

One major research project which he completed included data acquisition from 3,000 household interviews in Southern Ontario, of which 500 were in Hamilton-Wentworth and 500 in Burlington. Those interviews were done at 160 different sites of which 23 are in Hamilton-Wentworth and 19 in Burlington. The initial data collection program was funded by the Ministry of the Environment. In 1978, he added to his work with a study of house sales. This data was analysed and used to produce mathematical equations suitable for computer modelling to determine the impact of noise on people and house prices. He has determined that in an area where 24-hour noise levels are below 70 dBA there is no effect by noise on house prices. In areas where noise levels are above 70 dBA, there is an adverse impact of $300 per decibel for houses along expressways, and $250 per decibel for houses along arterial roadways. Where noise levels are above 70 dBA, there are definite measurable impacts on people with respect to sleep interference and speech interference. Such impacts are minimal in the 50 decibel range, and are small but measurable in the range of the low 60's.

Dr. Hall studied the work done by Dr. Lightstone and visited and inspected the route of the proposed roadway. He then collected data from numerous houses in the area, as shown in Exhibits 303 and 304, and compared that data to the predicted mitigated noise levels produced by Dr. Lighstone. It is his opinion that, with the mitigation proposed, there will be little or no community-related noise disruption caused by the road. The only exceptions would be at interchange (or intersection) locations where noise barriers are necessarily terminated. He said that he was surprised at the low level of impact which would be caused by this project when compared to other similar road projects in which he has been involved, and he believes those low impact levels may be because Dr. Lighstone's recommendations are conservative and have built-in safety factors. He also referred to the possible use of "carpet seal" pavement, which would give further protection from noise impact. He does not expect any adverse impact on property values arising from this project.

Under cross-examination, Dr. Hall said he had not done any studies related to either "the minor alternative" or "the perimeter road" although he was familiar with both locations. His lengthy cross-examination did not produce any change to his evidence-in-chief.

Diane Stevenson, whose curriculum vitae is contained in Exhibit 10, is qualified as a planner and an archeologist and is an employee of DeLCan Limited. She was the member of the Study Team responsible for the Heritage Component of the Environmental Assessment, Section 4.1.2 of Exhibit 58, and Section 2.3.B of Exhibit 180.

Exhibit 312 is an archeological and Heritage Resource Assessment prepared as part of Phase 4. That report is summarized in Section 4.1.2 of Exhibit 58. Exhibit 313 is a second report, prepared by Ms. Stevenson in July 1982, prepared as a response to concerns raised by the Ministry of Citizenship and Culture. Exhibit 313 is reported in Section 2.3.B of Exhibit 180.

The Ministry had raised nine specific items of concern with heritage matters. Eight of those have been resolved. The one issue remaining is with respect to the relocation of certain historic buildings.

Counsel for the Ministry was satisfied that the Ministry's concerns would be resolved by undertakings given by the Regional Municipality. Counsel for other objectors had no cross-examination.

Dr. Sydney Barton, whose curriculum vitae is contained in Exhibit 10, is Manager, Air Pollution Centre, Environmental and Chemical Engineering Division of the Ontario Research Foundation. He has been employed by the Foundation ever since he earned his doctorate from the University of Toronto in 1966. During that period, he has carried out numerous projects related to air quality, including work in the Hamilton area. His evidence in this matter is concerned with the impact of the proposed road on air quality.

Dr. Barton was retained by DeLCan Limited on behalf of the Region, and was provided with traffic data by DeLCan. In Exhibit 314, Dr. Barton has detailed the scope of his work and the methodology which he used. The executive summary at the beginning of his report is repeated herein, as an excellent summary of his evidence:-

> "A qualitative assessment of the potential impact on air quality of the proposed expansion of the roadway network within the Regional Municipality of Hamilton-Wentworth has been undertaken. A simple line source dispersion model was used to estimate short-term (1/2-hour) loadings attributable to both re-entrained dust and direct exhaust and tire wear emissions of total suspended particulate matter, as well as nitrogen oxides and carbon monoxide, in the vicinity of the proposed highway. These values then were compared to provincial standards and criteria. Factors which were taken into account in order to derive the appropriate emission rates included all available characteristics of the proposed highway and its traffic, and a very general definition of average meteorological conditions in Hamilton.
>
> Predicted concentrations of these pollutants at a receptor 100 m from the middle of the highway were well within 1/2-hour point-of-impingement standard values in most cases. Under varying conditions, NO_x concentrations contributed between 15 and 35% of the 1/2-hour standard and CO varied from 6 to 72%, while TSP (direct) varied from 3 to 8% and TSP (re-entrained) varied from 60 to 132%. The re-entrained dust contributions which exceeded the standard occurred in the vicinity of the more heavily travelled sections of the proposed highway. However, when these half-hour calculations were normalized to derive a concentration representative of a 24-hour sampling time period, the resulting values all comply with the Ontario ambient air quality criterion, by a substantial margin. On the basis of these estimates, it is concluded that no adverse effect upon air quality is likely to occur as a result of the proposed highway."

Dr. Barton was cross-examined at length, particularly with respect to climatological conditions, data collection, and analysis and modelling. As a result of that cross-examination and a careful review of his evidence, the Board has no reason to doubt his final stated opinion.

The eleventh witness panel consisted of Bertrand Wolfman and Gerry W. Lawson. Their evidence related to the capability of the Region of Hamilton-Wentworth to finance the undertaking and its probable effect on taxation and how it is to be financed.

Mr. Lawson is Treasurer and Commissioner of Finance for the Region of Hamilton-Wentworth with several years experience in the field of municipal finance. He has been in his present position with the Region for the past 2½ years and is well qualified professionally as well.

Mr. Wolfman is a Consultant with the firm of Currie, Coopers and Lybrand. He is a Chartered Accountant with a Master of Business Administration degree from Harvard. He entered the consulting field in 1964 and has a broad range of experience, particularly in consulting with municipal governments in relation to their financing and financing issues.

In regard to the financial condition of the Region, it is noted here that there was no dispute during the hearing to the fact that the Region of Hamilton-Wentworth is in an excellent financial position having the high rating of "AA" by the Canadian Bond Rating Service.

On February 1, 1983, the Council of the Region of Hamilton-Wentworth, by resolution, adopted a "Pay-As-You-Go Capital Financing Plan" as described in the following quote from Exhibit 325A in these proceedings:-

> "On February 1, 1983, Regional Council adopted a Pay-As-You-Go Capital Financing Plan. Under this policy the Region no longer issues debt for its own purposes. Capital projects are financed by current fund contributions and by borrowing of funds from reserves. The ultimate goal of the

> plan is to increase current fund contributions to a level where the capital program is fully financed from current operations. As external debt payments drop off and are replaced by increases in the contributions to capital less funding will be required from the reserves and the resulting internal debt charges will stabilize."

The evidence was that the undertaking will be financed in accordance with this policy and that since the projected capital reserves will be adequate to finance the undertaking, no issuance of debentures will be required. Since the project is to be undertaken over a number of years beyond the term of the present Council, the Region is seeking the Board's approval under Section 64 of the Ontario Municipal Board Act.

The total estimated.cost, as contained in Exhibit 58, expressed in 1982 dollars was $123,915,000. Mr. Wolfman in his report (Exhibit 318) calculated the cost in 1984 dollars as $130,000,000 which costs he estimates will total $193,200,000 over 14 years after allowing for an expected construction cost of inflation of 6 per cent annually. He estimated, conservatively according to his evidence, that subsidies totalling $111,700,000 would come from the Ministry of Transportation and Communications, leaving $81,500,000 to be financed by the Region over the 14 years or so that the construction of the facility is planned to take.

The Ministry has participated by providing subsidies of 70 per cent for land acquisitions, etc. and by a letter dated September 24, 1984 (Exhibit 320) to the Regional Chairman from the then Minister of Transportation and Communications, the Minister stated that he was "prepared to approve a provincial contribution to Stage 1". The following is quoted from that letter:-

> "I am prepared to approve a provincial contribution to Stage 1 of your program. My approval will, of course, be subject to the approval of the joint board of the Ontario Municipal Board and the Environmental Assessment Board.
>
> Our contribution will be based on your Stage 1 cost estimate of $66 million in '84 dollars with provincial share being 70% and the Region 30%. It is also on the understanding that the work will be carried over a period of six years commencing in 1985.
>
> If you and your Council agree with this proposal, I suggest we have our respective staff meet and discuss in more detail the scheduling of the project and the expected annual expenditures. I would also ask that we meet annually to review your progress and to settle our fiscal allocation.
>
> With respect to future stages of this project, I can only suggest that meetings be held near the end of Stage 1 to discuss at that time the future allocations and scheduling of the remaining portions of the project."

Mr. Wolfman in his report estimated the provincial subsidy for Phases 1 and 2 to be at the rate of 70 per cent and for Phase 3 to be at a substantially reduced rate.

The Board does not feel it necessary to report in any more detail the evidence of this panel.

Here again the cross-examination of these two witnesses was lengthy in comparison with the direct examination with much of the time taken up by procedural submissions by counsel. The meat of this cross-examination had to do with whether or not there may be other competing needs in the Region for expenditures which may be interferred with if this undertaking proceeds. The position of the Ontario Municipal Board, at least in this regard, is that local Councils are in the best position to consider this aspect. In any event, the only matter before the Board is the proposed undertaking, the Mountain East-West and North-South Transportation Corridor.

In summary, both these witnesses stated that the Region is capable of financing the project without any undue tax impact.

In connection with the approval requested under Section 64 of the Ontario Municipal Board Act, counsel for the proponent informed the Board (pages 9898 to 9900, Vol. 47 of the transcript) that the Region is seeking that approval for "expenditures that will be required which will in effect commit council to expenditures.....for Phase 1 and Phase 2". He further informed the Board that Council has not dealt with Phase 3 as yet but that this witness panel took it into account in all their reports and evidence.

Exhibit 322 is a resolution of Council passed on October 16, 1984, setting out the level of funding approved for the project. This resolution concerns only Phases 1 and 2, as the Board was informed, and is as follows:-

> "That the funding by the Region of the North-South East-West Transportation Corridor be approved in the Terms set out in Table 1 as follows:

TABLE 1

YEAR	LEVY TO FINANCE PRESENT ROAD PROGRAM	LEVY TO FINANCE PRESENT PROGRAM AND FREEWAY	COMMITTED FOR FREEWAY CAPITAL FINANCING
1985	$10,259,000	$11,275,000	$ 1,016,000
1986	10,040,000	12,064,000	2,024,000
1987	10,282,000	12,908,000	2,626,000
1988	10,401,000	13,812,000	3,411,000
1989	9,667,000	14,779,000	5,112,000
1990	9,885,000	15,814,000	5,929,000
1991	10,219,000	16,763,000	6,544,000
1992	10,557,000	17,769,000	7,212,000
1993	10,989,000	18,835,000	7,846,000
1994	10,957,000	19,965,000	2,918,000
			$44,638,000

For a total allocation not to exceed $44,638,000; and

> That the sums of money required for such funding for the years 1984 - 1994 be designated in the transportation services current budget in the sums shown on Table 1 above for those years; and
>
> That the levy for transportation services current budget purposes, to provide for the aforesaid funding shall be increased at a minimum rate of 7% to 1990, 6% thereafter, to raise the sums earmarked for the years of funding; and
>
> That this resolution be presented to the Consolidated Hearings Board at the Freeway Hearings in October to substantiate the level of funding approved for the freeway project."

In connection with Phase 3, counsel for the proponent advised the Board that it was thought better to hold back the approval of the Board as to that final part and "we will have to come back to the Ontario Municipal Board if this application is successful".

Leonard Dutchak is the Area Manager of the Planning and Design Office of the Central Region of the Ministry of Transportation and Communications. The Central Region includes the Regional Municipalities of Peel, Halton and Hamilton-Wentworth. Mr. Dutchak's curriculum vitae is found in Exhibit 395 and his evidence here is concerned with the involvement of the Ministry in this undertaking.

Where a municipal road is intended to connect to a provincial highway, the Ministry is involved, usually through input to a Working Committee. Historically, the route selection process for this undertaking began in the mid 1950's, and in 1960, a highway plan for Hamilton-Wentworth identified a road network for the area and the need for improvements to that network. In 1963, a consultant prepared the Hamilton Area Transportation Study which specifically identified the Red Hill Creek Freeway now under consideration. In 1975, a study by Mr. Radbone within the

Ministry (Exhibit 145) was done to review the Red Hill Creek portion of the road to determine if that location was appropriate as a viable alternative. More recently, the Ministry has been involved through representation on both the Working Committee and the Steering Committee throughout the work program by the Study Team from 1977 up to the present time. Mr. Dutchak said that at no time did the Ministry attempt to bring undue influence on the planning of this undertaking. The Ministry's function, as the senior road authority in the province and the financial partner in the project, was to bring the benefit of its experience to the Committees.

Mr. Dutchak said that the present capacity of Highway 403 is 3,500 vehicles per hour at a Level of Service E, and there are no plans for major improvements to Highway 403 within the Ministry's five-year program. That capacity was determined by DelCan, specifically Keith McLean, and the Ministry accepts Mr. McLean's expertise in that area. No changes would be required at the interchange of Highway 403 and Mohawk Road to accommodate the east-west arterial now under consideration. Changes would be required to that interchange if the east-west arterial road were to be upgraded to a freeway at some future date.

With respect to the interchange required to connect the north-south freeway to the Queen Elizabeth Way, the Ministry now has approval from the Ministry of the Environment to construct such an interchange, generally as shown on Figure 50 of Exhibit 57. The proposed interchange is feasible and appropriate and can be accommodated. Exhibit 396 shows some likely modifications to that proposed interchange, required for safety purposes in conjunction with the twinning of the Skyway Bridge and the general widening of the Queen Elizabeth Way. Construction of that interchange is dependent on this Board's approval of the undertaking now before the Board. The proposed interchange, together with the roadway construction southerly to Brampton Street is estimated to cost $28,000,000 and would be solely the responsibility of the Ministry.

The Ministry's financial commitment to the proposed undertaking is to provide 70 per cent of the cost of Stage 1. Mr. Dutchak said the Ministry would consider the appropriate funding for Stages 2 and 3 when construction of those stages became imminent, but it is highly improbable that the Ministry would not continue to fund this particular project.

Mr. Dutchak said it had been his experience with respect to Highways 404 and 410 that the construction of such freeways leads to increased commercial and industrial development in the affected municipalities.

He said that the combining of Type I and Type II Environmental Assessments into a one stage assessment is an appropriate process to follow for this proposed undertaking. As an example of recent road construction in a Valley, he entered Exhibit 397 to show Black Creek Drive which is a southerly extension of Highway 400 into North York. That three-mile long road was a subject of concerns similar to those now raised with respect to the Red Hill Creek Valley, but the eventual construction has proven to have a positive impact on all areas of concerns such as: parks, recreation, noise, natural environment, truck traffic and residential areas.

Mr. Dutchak was cross-examined by Mr. Turkstra through most of three hearing days. During that cross-examination, Exhibits 398 to 444, both inclusive, were entered. Many of those exhibits are copies of documents in the Ministry's files and now under Mr. Dutchak's supervision, although most of them were initiated before Mr. Dutchak occupied his present position with the Ministry. With the use of those documents and extensive questioning, Counsel attempted to show that the Ministry of Transportation and Communications had attempted to influence the selection of the Red Hill Creek Valley as the preferred route for the north-south freeway. After many hours of cross-examination, Mr. Dutchak did not agree that the Ministry had so acted.

In cross-examination, Mr. Dutchak reviewed numerous documents, including correspondence between the Ministry, the City and the Region, as well as various resolutions of both City Council and Regional Council. It is clear from that cross-examination that the City had, at one time, expressed an intent to retain the Valley in its original state and not allow any future road construction as now proposed. However, it is also clear that the City's position later was reversed, and eventually, with the establishment of the Regional Municipality, the whole matter of the proposed east-west, north-south road became a project of the Regional Municipality. It is also clear from the cross-examination that the Ministry has given a commitment to participate, to the extent of 70 per cent, in the financing of the cost of Stage 1 of the project. That confirms Mr. Dutchak's evidence-in-chief.

There was lengthy cross-examination with respect to the proposed interchange to be constructed at the Queen Elizabeth Way. That cross-examination led to the bringing of a motion and argument by both counsel with respect to the Environmental Assessment (Exhibit 441) and the necessary approvals for the construction of that interchange. The motion and the Board's ruling on the motion are fully reported in the record, Volume 61 from page 12,931 to page 12,934. Since that is a significant motion in these proceedings, it is reported fully as follows:

> "THE CHAIRMAN:
>
> We have considered the arguments put forward by counsel with regard to the issue of whether or not the north-south expressway from a point north of Brampton Street to where it intersects with the Queen Elizabeth Way, including what has been referred to at this hearing as the Red Hill Creek Interchange with the Queen Elizabeth Way, is included properly within the proponent's application and therefore will be included in the Board's decision.
>
> Mr. Lederer has taken the position that the interchange connections of the expressway with the Queen Elizabeth Way, and for that matter the east-west arterial with Highway 403, are part of the overall undertaking proposed and have been dealt with as such in the Environmental Assessment and supplementary environmental assessment documentation. Mr. Turkstra takes an opposing view and says the interchange and modifications to the Queen Elizabeth Way, required as a result of constructing the interchange, are not included in the proponent's application, for the Ministry of Transportation and Communications is not the applicant before us, nor has it completed an environmental assessment of the interchange or the resultant changes to the Queen Elizabeth Way.
>
> The Board has concluded that the undertaking as put forward by the Region does include within it the concept of connecting the east-west arterial to Highway 403 and also the north-south expressway to the Queen Elizabeth Way and accordingly it is properly before this Board for the following reasons:
>
> (1) The undertaking has been described by the Region from the outset as, and I quote:
>
> > "An undertaking to develop and construct the Mountain east-west and north-south transportation corridor to connect Highway 403 in Ancaster to the Queen Elizabeth Way in the eastern portion of the City of Hamilton."
>
> The concept of the undertaking is a transportation corridor within the geographic limits terminating at Highway 403 on the one end and the Queen Elizabeth Way on the other. To describe it otherwise within the concept put forward in several months of hearings would make no sense whatsoever.
>
> (2) The Ontario Divisional Court, in its decision in Re: Ontario Hydro Eastern Ontario stated case released February 25, 1985, held, in response to the questions

> posed that, and I am not quoting but the gist of it is that the proponent and only the proponent delineates the undertaking under The Environmental Assessment Act and the Board has no jurisdiction to approve any alternative undertaking other than that proposed by the proponent. If the Board is not satisfied with the undertaking as proposed it must reject the undertaking.
>
> In this application we find that the Region implicitly included the interchanges as part of the undertaking and accordingly it is now before us. The fact that the interchanges with provincial highways are under the jurisdiction of the Ministry of Transportation and Communications does not in our view exclude them from consideration by this Board as part of the application, and in circumstances where the Ministry of Transportation and Communications has participated throughout the planning of the overall undertaking and has indicated its willingness to fund Stage 1, and to discuss at the end of Stage 1 the future allocations and scheduling of the remaining portions of the project, and the Board accepts the Minister's letter dated September 24, 1984, as a future commitment to participation in the total project.
>
> The matter therefore is what impacts arise from the construction of such interchanges and counsel may put forward in evidence anything in this regard for our consideration.
>
> Although this ruling may be the subject of further submissions by counsel in argument, this Board is prepared to continue with this case on the basis that the interchanges are now properly before us and have been properly before us throughout. That concludes our ruling with respect to that issue."

Under re-examination by Counsel for the Region, Mr. Dutchak studied Exhibit 445, a copy of Official Plan Amendment No. 228 approved by the Minister on September 19, 1969. At page 11, Section 4(2)(d), the route of the proposed north-south freeway is described as being in the Red Hill Creek Valley with the exact location to be determined by engineering studies. Exhibit 444 is a report entitled "The Mountain Red Hill Freeway, A Review" dated May 14, 1973, and prepared by staff of the City of Hamilton. That report describes the need for the proposed roadway and states that the freeway can be built in the Valley without creating significant adverse impacts. The conclusions of the report are contained in the record, Volume

62, commencing on page 12,993, and support the location of the freeway in the Valley.

With reference to Exhibit 145, the Radbone Review in 1975, Mr. Dutchak said that report was prepared jointly by City staff and Ministry staff, and clearly indicates that the Valley should be studied as one viable alternate route for the north-south freeway. Mr. Dutchak said that in his opinion it would not be appropriate to carry out an environmental assessment without considering the Valley as an alternative, because the environmental assessment has to look at all reasonable alternatives to be consistent with the Environmental Assessment Act. He further said that with the Radbone report issued in January 1975, and the subsequent adoption of Official Plan Amendment No. 297 in March 1975, it is clear that no pressure was brought to bear by the Ministry to locate the freeway in the Valley, although Official Plan Amendment No. 297 was not subsequently approved.

On May 29, 1977, Order-in-Council 1541/77 (Exhibit 446) gave approval to By-law R77-78 of the Regional Municipality, a by-law to amend the Regional Road System. Effectively, jurisdiction of the freeway then came under the Regional Municipality.

William Thomson is familiar with Hamilton, having grown up there, and he attended McMaster University from which he graduated in 1952 with an Honours Bachelor of Arts degree. In 1953, he graduated from the University of Indiana with a Master of Arts degree in urban real estate and geography. He then attended the University of Chicago from 1954 to 1956 and completed the course work on a doctorate of inter-urban planning, but did not finish the thesis work for his doctorate. He is now working towards that as a part-time student at the University of Western Ontario. He is a member of Canadian Institute of Planners, the Ontario Land Economists Association, the Ontario Environmental Association, the Urban Land Institute, and both the Ontario and Canadian Industrial Development Associations. He was employed for a time as a planner for the Province of Ontario, and for three years as Director of Planning for Burlington. From 1961 to 1973, he was Planning Director for the City of Kitchener. From 1973 to 1984, he was Commissioner of Planning for the Regional Municipality of Waterloo. Since October 1984, he has been the Commissioner of Business Development for the City of Kitchener. Mr. Thomson is well known in the Planning field in Ontario, particularly in the Kitchener-Waterloo area.

His evidence in this proceeding was with respect to the impact of the Conestoga Expressway on the Kitchener area. With the use of Exhibit 408, he explained the relationship between the cities of Cambridge, Kitchener, and Waterloo, and the exhibit also shows the location of various provincial highways and the Conestoga Expressway. He said that planning for the Expressway had started in 1948, but construction did not take place until the period of 1965 to 1971.

No formal study was done with respect to the impact of the Expressway, but from his position as the Chief Planner in the area for many years he has personally observed the impact of the road. In his words: "It has had a tremendous impact on both cities as far as economic development is concerned." The construction of the Expressway initiated a boom in industrial development, and there are four new City-developed industrial parks, and a number of private developments as a result. The Expressway enhanced a linkage factor and provided improved traffic circulation and eliminated the need to widen the main through City streets. The industrial development was complemented by downtown urban redevelopment of the City's main commercial area. He said the Expressway has had no adverse impact on residential house sales, and there are no known noise problems although traffic is in the order of 30,000 to 40,000 AADT. The combined population of Kitchener and Waterloo is now 190,000 and although that is somewhat less than the Hamilton area, the circumstances surrounding the use of the Conestoga Expressway are similar to those now under consideration in Hamilton-Wentworth.

Under cross-examination, he agreed with Counsel that planners must be careful in taking concepts that work in one City and applying those concepts to other cities. He agreed that Hamilton has a major east-west traffic movement in the older lower part of the City. He agreed that the Conestoga Expressway formed part of the provincial highway system for Highways 7, 8, and 86, but he also said the Expressway is a major ingredient as far as industrial development is concerned. He said: "There are three reasons why we built that road. One was to relieve our downtown streets of through traffic. Two, to meet the demand of the north-south movement of traffic in a wide band, and to facilitate the economic development for the twin cities, and that road accomplished that."

Douglas Jagger is a hydrogeologist and his curriculum vitae is contained in Exhibit 449. His evidence at the hearing is summarized in his report contained in Exhibit 450. Specifically, he was retained by the Region "to determine if the construction of the Expressway will impact on the leachate plume originating from the Upper Ottawa Street Landfill Site Site, or if the leachate plume will impact the Expressway."

Prior to this assignment, in 1978, 1979 and 1980, Mr. Jagger had done a detailed investigation of the Landfill Site and Exhibit 451 is a report of his findings in that investigation. He is, therefore, totally familiar with the Landfill Site and used some of his original survey work to prepare Exhibits 453 to 459, inclusive, for his evidence herein. On Exhibit 454, he has established the contours of the bedrock underlying the Landfill and on Exhibit 455 he has established the contours of groundwater flow. The landfill is based on the bedrock, and leachate from the landfill is forced into the rock and flows generally in a northeasterly direction. Exhibits 456 and 457 show separation thicknesses from bedrock and groundwater to the proposed finished grade of the new road; and Exhibits 458 and 459 are cross-sections showing the same information.

Mr. Jagger said the Regional groundwater flow is associated with the bedrock, and the Landfill Site is situated in the physical setting of the Red Hill Creek Valley. Leachate generated on the site flows through the bedrock but a definite plume has not been defined. The proposed grade of the Expressway is above the bedrock and does not intersect the bedrock. Similarly, for the groundwater level. Therefore, he said there is no interaction and no impact either by the expressway on the bedrock, or groundwater, or vice versa. There is a possibility that footings for structures may be founded on bedrock, but no impact will be significant there.

He is familiar with the Upper Ottawa Street Landfill Site Study Committee, and its report in Exhibit 452. He said there are no major discrepancies between his work and that of the Study Committee.

Most the cross-examination by Mr. Turkstra related to the contents of the Landfill Site and Mr. Jagger was not able to respond to questions concerning toxicology. He agreed that the Study Committee may have used improved methodology in its investigation, but he did not disagree with the Committee's findings in Exhibit 452.

The City of Stoney Creek, represented by Mr. George Yates as counsel, appeared in support of the undertaking. Mr. Yates called two witnesses, Alfred Gretzinger, City Engineer for Stoney Creek and Ronald Marini, the Director of Planning for Stoney Creek.

Mr. Gretzinger outlined his participation on the Working Committee as the representative of Stoney Creek. He fully supports the proposal. He stated that the selected alternative is, in his opinion, that best one for the City of Stoney Creek in that it will provide the best access to and assist in the proper development on the Escarpment of the Ontario Land Corporation lands (Heritage Green). It will also provide the residents in Stoney Creek on the Escarpment with appropriate and necessary traffic lanes to places of employment, shopping and entertainment both in Stoney Creek and the east end of Hamilton. As far as he was concerned he concluded that the Highway 20 alternative would not be beneficial to Stoney Creek. In regard to the Highway 20 alternative Mr. Gretzinger stated that, in his opinion, they do not go far enough to alleviate the ever increasing traffic flow, particularly truck traffic on the arterial roads through residential areas and do not provide any flexibility to meet future demand if a high rate of transit use is not achieved. He also pointed out the Highway 20 alternative would create a high degree of community disruption relative to other options available and would be much more costly than the selected alternative.

Under cross-examination, which unfortunately consisted largely of attempts to show that Stoney Creek was in favour of the selected alternative because it is in the City of Hamilton and would therefore not disrupt Stoney Creek, Mr. Gretzinger re-affirmed his position that he based his support strictly on his personal professional analysis and opinion.

Mr. Marini, in giving his evidence, informed the Board that Official Plan Amendment 70 of Stoney Creek, approved by the Minister in 1973, indicates two arterial roads in the north-south direction, the first being Highway 20 and the second the Red Hill Creek freeway. His further evidence consisted of the opinion that the proposed undertaking is necessary and has been under consideration and planning for a great length of time.

The Board does not feel it necessary to go into the cross-examination of Mr. Marini in any detail but suffice it to say that this cross-examination related mainly to the question of lands available in Stoney Creek for development that really do not require the proposed undertaking. Mr. Marini basically agreed that such is the case but pointed out that he felt that part of Stoney Creek's success over the past years has been the availability of both choice and market and this kind of planning should continue.

Mr. Van Louwe, Senior Research Assistant with the Social Planning and Research Council of Hamilton and District gave evidence at the hearing. On a preliminary question by the Board Mr. Van Louwe stated that the Council was neither supporting nor opposing the application. However, during the course of his direct evidence, it became difficult to determine that the Council was not opposed since his evidence largely expressed that the Environmental Assessment as prepared by the Region is inadequate. In this regard counsel for the proponent requested that the record show that Mr. Van Louwe appeared in opposition. Be that as it may, his evidence consisted almost entirely of a criticism of the Environmental Assessment procedures as contained in the Environment Assessment Submission (Exhibit 58) in these proceedings.

On a further question from the panel he confirmed that the Environmental Assessment, in the opinion of his Council, is inadequate because of defects in methodology and as a result should not be approved.

During extensive cross-examination by counsel for the proponent Mr. Van Louwe agreed that evidence given by various witnesses of the proponent at the hearing and other reports made which may not have been part of the Environment Assessment documentation may have answered some of the concerns of the Social Planning and Research Council of Hamilton and District.

After careful consideration of Mr. Van Louwe's evidence the Board does not consider it to be any way helpful in spite of the length of time it occupied in the hearing.

The Ontario Land Corporation, represented by its counsel D.O. Hall, appeared in support of the undertaking. Mr. Hall called two witnesses, Andrew Alic, Manager of the Southwest Region of the Ontario Land Corporation and John Williams, a planning consultant and a member of the Canadian Institute of Planners.

The Ontario Housing Corporation acquired some 1,662 acres of land mainly in the City of Stoney Creek from 1967 to 1979 and transferred ownership to the Ontario Land Corporation in 1979. A large portion of the lands have been and are being developed residentially in a development called Heritage Green. The Board does not feel it necessary to relate in this decision any details of this development but suffice it to say that the Ontario Land Corporation had developed up to the date of this evidence some 1,350 housing units.

In Mr. Alic's evidence he stated that the development is not proceeding as quickly as anticipated and that, in his opinion, the construction of the proposed undertaking by providing better access would assist in the development proceeding more rapidly and thus allowing the Ontario Land Corporation to recover its investment faster.

Mr. Williams, in his evidence, outlined the development of Heritage Green, which again the Board does not feel necessary to repeat in this decision. He expressed the opinion that the Red Hill Creek freeway will foster earlier and likely faster development in the Heritage Green community and faster development in the adjacent local industrial area in the Mountain Industrial Park. He further expressed the opinion that it is of considerable benefit to the continued orderly development of Heritage Green and the West Mountain community and that it appropriately fulfills the policies of the Region's Official Plan.

The Ministry of Citizenship and Culture was represented at this hearing by its counsel, S. Stepinac. Mr. Stepinac called as his witness David J. Cuming. Mr. Cuming is a Conservation Officer with the Ministry and is a member of the Canadian Institute of Planners. His evidence consisted largely of the Ministry's review of the Environmental Assessment Submission and their concerns regarding the protection and mitigation procedures of heritage resources that may be disturbed by construction of the proposed facility which the Board does not feel necessary to repeat in this decision since they are all covered in the requested 10 conditions to this undertaking if it is approved. Mr. Cuming stated that the proponent has agreed to 9 of these conditions leaving one condition to be resolved. Counsel for the proponent, during his argument, stated that the Region would accept this condition as well.

These 10 conditions as requested by tne Ministry of Citizenship and Culture in Exhibit 394 are:-

1) The archaeological site known as the Spera site (AnGw-31) must be subject to mechanized topsoil stripping prior to Stage 2 construction. Such activity shall be supervised by a licensed archaeologist.

2) The nineteenth century homestead site located southwest of Nardi Court (not identified in Delcan's 1980 report) shall be subject to the same mitigation measure as in 1, i.e. mechanized topsoil stripping supervised by a licensed archaeologist.

3) The Freeway corridor in the Town of Ancaster shall be subject to archaeological survey and investigation by the proponent, with mitigation measures being adopted, if necessary, by the proponent following consultation with the Regional Archaeologist of the Ministry of Citizenship and Culture.

4) The late 19th century farmhouse located on Garth Street and identified by the prononent in Heritage Resources Documentation, July 1982 shall be subject to further detailed recording prior to

demolition, mainly in the form of black and white photographic recording of elevations.

5) With respect to the remnants of the lime kiln located adjacent to Upper James Street, the following shall be carried out prior to disturbance of the site:

   (i) the preparation of measured drawings and a site plan of the existing lime kiln remnants;

   (ii) the carrying out of historical and archaeological survey work to determine the extent of the lime kiln complex; to identify foundation or other physical remnants of the complex where they exist; and to determine if further archaeological mitigation measures are necessary (Staff of MCC shall be consulted to ensure that work carried out is satisfactory);

   (iii) the lime kiln remnants shall be relocated to a suitable site and preserved and maintained as a monument. Work shall be carried out as provided for in condition 6.

6) The hamlet of Mount Albion shall be subject to complete and comprehensive recording prior to disturbance and shall comprise the following:

   (i) a comprehensive written history of the settlement from its earliest origins to the present day;

   (ii) a compilation of graphic material, e.g. contemporary (black and white) and historical photographs; contemporary and historical maps of the area; which will comprise a comprehensive visual record of the settlement; its buildings and inhabitants;

   (iii) any relevant oral history from past or present residents of Mount Albion;

(iv) any archaeological mitigation measure that may be deemed warranted by the results of historical investigations.

N.B. All work shall be carried out by suitably qualified persons. Staff of MCC shall be consulted to ensure that work carried out is satisfactory. Material collected will be deposited with appropriate bodies or agencies.

7) In Mount Albion those buildings identified as being of architectural and/or historic interest in this environmental assessment and as a result of condition no. 6 shall be recorded prior to their removal. Such recording shall be agreed upon by the proponent and MCC and will be informed by this Ministry's guidelines.

8) Those buildings identified in condition 7 shall be relocated subject to the feasibility of such actions, i.e. availability of suitable sites; distance; cost; and structural condition, after consultation and agreement with MCC.

9) Those road bridges to be removed or made redundant should be described on recording forms provided by MCC. Mitigation measures, e.g. adaptive re-use; incorporation of plaques into new structures, etc. shall be agreed upon by the proponent and MCC.

10) The cemetery at Mount Albion is to be adversely affected through acute disruption of its surroundings. Detailed landscaping plans shall be prepared by the proponent indicating appropriate mitigation measures, e.g. vegetative planting; berm construction. Such measures shall be agreed upon by MCC.

The Hamilton Trucking Council was represented at the hearing by its counsel, B. Morison. Mr. Morison called as his witness Harold Jennings, the Secretary-Treasurer. Mr. Jennings has spent 49 years in the trucking business mainly in the Hamilton area.

The Hamilton Trucking Council supports approval of the undertaking mainly due to its perceived benefits to the trucking industry by virtue of expanding possibilities of more industrial and commercial establishments locating in the area due to greatly improved accessibility. Mr. Jennings also expressed the opinion that the proposal will greatly enhance the transportation facilities serving the area and directly benefit the trucking industry by assisting in removing many of the trucks from existing city streets.

The cross-examination of Mr. Jennings by Mr. Turkstra, which was rather lengthy compared to the time of the direct examination, was interrupted many times by procedural arguments and in the opinion of the Board did not assist in any material way.

The Niagara Escarpment Commission was represented at this hearing by its counsel S. Stepinac. Mr. Stepinac called as his witness George McKibbon, who has a Master's degree in Environmental Studies and is a Senior Planner with the Commission and is responsible for the review of Environmental Assessments. The Board does not feel it necessary to detail Mr. McKibbon's evidence except to state that he agreed that the Environmental Submission by the proponent is generally satisfactory and that while the Niagara Escarpment Commission is not in agreement with the proposed undertaking using the Red Hill Creek Valley as its location, the Commission strongly prefers that the Valley be avoided but, in the event of approval of the undertaking, requested that certain conditions be attached to the development permit necessary under the Niagara Escarpment Planning and Development Act, (R.S.O. 1980, c. 316).

These conditions are summarized as follows:-

1) Some commitment to develop the park (as in Exhibit 277 - The Proposed Recreation Master Plan for the Red Hill Creek Valley).
2) Results of storm water run-off and erosion studies be incorporated.
3) Detailed grading plan to be prepared.
4) Detailed tree preservation plan and planting plan to be prepared.
5) A limit of work fence be established to separate the area required for construction from that which is not.

Witnesses (not represented by counsel) in Support

Mr. Vincent Curtis, a research scientist employed by the Ontario Research Foundation, gave evidence in support giving as reasons his opinions that:-

1) Construction will provide jobs for Hamiltonians
2) Will make Hamilton more attractive for new industry
3) Will relieve Mohawk Road of heavy, noisy truck traffic

In connection with his evidence he filed Exhibit 326 which is a review of the E.A. submission of the Region by the Social Planning and Research Council of Hamilton and District and related his evidence to that document.

Mr. John Gallagher gave evidence in support principally because of his opinion that the transportation system of Hamilton Region would be revitalized and that the proposal would service industry and people and create jobs. He also presented a petition in support signed by some 300 people.

Mr. T.F. Casey appeared on behalf of the Hamilton-Brantford Building and Construction Trades Council to present evidence in support of the proposed expressway giving as chief reasons that that project would generate much needed jobs and prepare the Region for future prosperity by attracting new industry and maintaining the current ones.

Mr. John Raynsford gave evidence in support expressing his opinion that the proposal would relieve City streets from pollution which is affecting the outsides of his home and others in the area.

Mr. C.A. Towsley appeared on behalf of the Hamilton Harbour Commissioners. He is a planner employed as Manager of Property and Planning by the Commissioners. The Commissioners support the proposal on two grounds:-

1) Will improve the transportation network that serves the port
2) Will assist the port in making it more competitive by helping to attract marine and port users.

Mr. Balys Kronas, a real estate broker, gave evidence in support on his own behalf and on behalf of five companies in which he has interests. His evidence consisted largely of his opinion that the proposal would bring vitality to the Region by way of improved transportation facilities for commerce, industry and residential users and in that it will provide a catalyst for encouraging all categories of development in the Region. He also contended that the proposal, as developed by the proponent, would have no real adverse effects on the environment, the Escarpment, or owners of property near the proposed roadway and, in fact, will enhance the area due to better access being provided.

It should be pointed out that Mr. Kronas was extensively cross-examined by counsel for the main objectors.

Mr. Herman Faber, counsel representing The Free Reform Church of North America, made a submission to the Board as opposed to giving evidence. His client has a church located on the south side of Mohawk Road near the western extremity of the proposed undertaking. The church is not opposed to the undertaking but is concerned with possible loss of access.

Mr. Faber was advised that the Board has no jurisdiction to deal with his concerns and that he should continue, if necessary, to discuss the problem with the Region.

Mr. Thomas Ashthorpe gave evidence on behalf of his sister, Sara John, who owns property on Melvin Avenue. They wish the expressway to be built since they feel that it will clean up and improve the Valley.

Mr. Lee Kirkby presented a brief and gave evidence on behalf of the Hamilton Construction Association in support of the proposal. It was his evidence that the economic viability of the Region must take precedence. He also expressed the opinion that the Region has satisfactorily provided the necessary mitigation remedies to reduce the negative effects of the construction of the roadways.

Mr. Leo Laviolette submitted a brief and gave evidence in support of the undertaking. It was his evidence that the proposal has many area-wide benefits such as reduced traffic congestion, reduced noise and pollution, and reduced truck volumes on downtown streets and on steep mountain accesses. He also expressed the opinion that the proposal will provide a good transportation system that is attractive to industry.

Evidence in support of the undertaking was given by Mr. R.J. Whynott on behalf of the Hamilton and District Chamber of Commerce. His evidence set out the opinion that there is a need for the link between the Queen Elizabeth Way in the east and Highway 403 in the west in order to properly open up the area to expansion and diversification of the Region's industrial base. He further stated that the proposal will provide improved access to the Hamilton Airport and will play a vital role in the viability of the airport.

Mr. J.C. Buchanan submitted a brief and gave evidence on his own behalf in support of the undertaking. It was his contention that the heavy traffic on Upper Ottawa Street N. would be greatly reduced since the proposed freeway would be a better route. He also expressed the following opinions that the freeway will -

1) Reduce City road maintenance
2) Open up industrial sites on the Mountain
3) Give more attention to Red Hill Creek Valley and Albion Falls to clean them up for safe recreation
4) Stimulate growth in the area.

Mr. D.F. May, a member of the Canadian Institute of Planners, gave evidence in support of the undertaking on behalf of the Hamilton and District Home Builders' Association. He pointed out it is his opinion that the major growth areas are the central business district and in terms of housing the Hamilton Mountain will be the major source of residential development. He stated that the proposal will provide better access, particularly to the Mountain area. It was his opinion that the Limeridge Mall and surrounding neighbourhood were planned on the basis of the East-West portion.

The cross-examination of Mr. May by Mr. Turkstra consisted largely of questions relating to Mr. May's past involvement with planning in the area.

Mr. Wm. Sinclair also gave evidence on behalf of the Hamilton Home Builders' Association in support of the undertaking. As a house builder since 1949 in the area, Mr. Sinclair expressed his opinion that access to major thoroughfares is necessary and that heavy traffic situations on roads such as Mount Albion Road will be relieved if the undertaking is constructed.

Mr. W.W. Hammant, who has been in business in Hamilton both in manufacturing and trucking, gave evidence in support of the undertaking. It was his opinion that the orderly development of Hamilton and area requires the construction of the proposal and is vital to the development of Hamilton Airport and the City centre core.

Mr. George Barclay gave evidence in support of the undertaking on behalf of 53 businesses in the East Mountain Industrial Park. He stated that the businesses that have located in this park did so on the basis that the transportation corridor as proposed would, in fact, be a reality. He further expressed the opinion that the viability of the East Mountain industrial and business park becomes questionable without improved transportation facilities. It was also his opinion that such a transportation corridor could co-exist with a "people place" and will greatly assist the positive growth and prosperity of the Region.

Mr. Morgan Pirie, a planning consultant and member of the Canadian Institute of Planners, acting as Township Planner, appeared on behalf of the Township of Glanbrook in support of the undertaking. The major part of Mr. Pirie's evidence concerned the North Glanbrook Industrial Park which is located in the Township directly south of the Hamilton Mountain Industrial Park and contains some 850 acres. It was his evidence that although this industrial area has many positive features, the lack of good road access has been a major deterrent in not being able to attract industrial development. He expressed the opinion that the provision of the proposed freeway and the road connections into the park will substantially improve the access to this industrial park.

In addition to the North Glanbrook Industrial Park there is an area in and around the Hamilton Airport which is located in the Township of Glanbrook that has potential for industrial development. In this regard it was Mr. Pirie's evidence that the proposed undertaking will assist in increasing the attractiveness of this area as well.

Mr. Alec Kelly is the development manager for 551908 Ontario Limited which is now the owner of some 1,100 acres of land in the Town of Ancaster to be used for residential, commercial and industrial development. He outlined the company's plans for development which the Board does not feel necessary to detail in this decision.

It was his expressed opinion that the proposed undertaking would be of great enhancement to the lands owned by his company.

Mrs. Barbara Blake, representing the Centennial Parkway Ratepayers, appeared in support of the undertaking. The evidence of this group, as presented by Mrs. Blake, was primarily related to the fear that Highway 20 (Centennial Parkway) would be the route of the North-South section and not through the Red Hill Creek Valley as proposed. She stated that the Centennial Parkway Ratepayers support the position of the Region since it is their opinion that the Red Hill Creek Valley route would be environmentally less damaging and that fewer people would be affected.

It is pointed out here that Highway 20 was one of the alternatives considered by the Region.

Mrs. Mary Wiebe, a member of the Centennial Parkway Ratepayers, also gave evidence and stated that she agreed with Mrs. Blake's evidence but was also concerned with the already existing heavy traffic and speeding on Centennial Parkway.

Mr. Frederick Pizzoferrato appeared on behalf of the Cardinal Newman High School Parents' Council and gave evidence in support of the undertaking. Cardinal Newman High School is located on Centennial Parkway.

The Council is concerned with the present heavy traffic on Centennial Parkway and feels that the construction of the North-South section as proposed would reduce the traffic on Centennial Parkway and create a much safer condition for students attending the high school.

Mr. Robert Outlaw, representing the Metropolitan Hamilton Real Estate Board, gave evidence in support of the undertaking. He stated the opinion that the proposal is the least harmful of all the alternatives and that without the facility there is no hope of attracting secondary industry to the Region. He further stated that since job opportunities will be created there will be an increased demand for housing and as a result property values will be maintained. In concluding his direct evidence Mr. Outlaw gave the opinion of his board that the proposed facility will not harm the environment and that its construction is vital to the economic interests of the Region.

Mrs. Isabel Docherty gave evidence in support of the undertaking giving as her reason that its construction will greatly assist in creating job opportunities in Hamilton.

Mrs. Heather Murphy, Director of the St. Simion House for Women, in giving evidence in support of the undertaking, simply stated that if the proposal will help reduce unemployment then it is necessary.

Mr. Eugene Kronas, in giving his evidence in support of the undertaking, gave as his reason that the proposed freeway would assist in cleaning up the Red Hill Creek Valley while, at the same time, providing the facility.

In giving evidence in support of the undertaking, Mr. Dick Citroen stated that the freeway should be constructed in the Red Hill Creek Valley since, in his opinion, it will improve the Valley.

Mrs. Bonnie Bowling, a resident of the east end of Hamilton in giving evidence in support of the undertaking gave her opinion that the proposal is necessary in order to improve the transportation facilities in the area.

Dr. T.J. Muckle stated in giving evidence that he is in support of the undertaking but that he was not so much concerned that the project go through in its proposed location but that lands in "the peninsula" be maintained in their present state and that there be no further encroachment by industry or roads.

Mr. Kurt Wolfsgruber, a resident of Fairridge Road, appeared at the hearing to express his concern that the present access to his area would be cut off if the undertaking proceeds. He was not opposed to the proposal as such but wanted assurance that a proper access will be provided and not leave his area with a somewhat lengthy alternate access.

Witnesses (not represented by counsel) in Opposition

Mr. J. Boleantu gave evidence in opposition primarily expressing his concerns about the adverse effects of car and truck exhaust on the environment and that such man-made pollution cannot be accommodated by nature. He also expressed his opinion that existing roads can adequately handle industrial and commercial transport without destroying the Red Hill Creek Valley.

Mrs. Gil Simmons gave evidence in opposition. It was her opinion that the Red Hill Creek and King's Forest area is very special terrain and that the proposed road would radically reduce the quality of that open space.

Mrs. Elizabeth Rawley appeared on behalf of the Hamilton Committee of the Communist Party of Canada, gave evidence and submitted a brief in opposition, the chief opinion being that the social and financial costs to the community are unacceptably high and that valuable natural park lands such as the Red Hill Creek Valley should be saved.

Mira Pavlica gave evidence in opposition expressing the opinion that the expressway would create more pollution and devalue homes in the area.

Dr. Piero Boldrini, a chemical engineer, gave evidence in opposition primarily because of its adverse effects on the environment due to increased pollution and the elimination of trees.

The evidence of Delores Marks was in opposition to the proposal and chiefly concerned her opinion that the roadway is not necessary since existing roads are adequate and that funds should be channelled into more vital and beneficial projects.

Evelyn Conway's evidence in opposition to the proposal was mainly in connection with her opinion that the roadway will serve no useful purpose and that realty taxes will be increased as a result of constructing the facility.

Jeannine Tyberssek, whose property backs onto the proposed roadway, gave evidence in opposition to the proposal. Her main reason was her opinion that the roadways are unnecessary and that money should not be spent on such an extravagance.

Mr. R. Mann gave evidence in opposition to the proposal. Mr. Mann stated that although he was not opposed to a north-south expressway he was opposed to the use of the Red Hill Creek Valley being used as the route since it was his opinion that by utilizing the Valley for the expressway that it would be destroyed.

Mary Rao gave evidence in opposition to the proposal. Her evidence was mainly related to her opinion that the proposal is unnecessary, will increase taxes, and that a perimeter road is all that is necessary.

Mr. Peter Head, of Hamilton Builders Supply, gave evidence in opposition to the proposal. Hamilton Builders Supply is located on the route of the East-West section and is chiefly concerned with access to the business being cut off. He suggested that there are other possible routes for this East-West section such as a Hydro right-of-way on Highway 53.

Mr. Terry Fraser, a life long resident of the east end of Hamilton and for the past several years in an area very close to the Red Hill Creek Valley, gave evidence in opposition to the undertaking. He feels that there is no need to destroy "the priceless parkland" in the Valley and it is his opinion that the traffic congestion in Hamilton is minor and that such traffic congestion should not be used as one of the justifying factors in support of the proposal.

Mr. Wm. Santor, on behalf of the Green Party Association of North Wentworth, gave evidence in opposition to the undertaking. His main evidence was in regard to the Red Hill Creek Valley, of which he stated that it is the last significant piece of quiet green space left in the City. He also expressed the opinion that construction of the facility would not result in increased employment opportunities in the Region.

Mrs. Lillian Orban gave evidence in opposition to the undertaking. She expressed her concern over the many years it had taken for the various councils, both City and Region, to reach an unsatisfactory concensus that the proposal should proceed. Her opinion was that Hamilton has held its own as far as growth is concerned. She further stated that she felt the resulting construction would only create temporary jobs over a short term. In this regard she said the road did not need to go through the Red Hill Creek Valley to accomplish such temporary jobs. In her opinion the freeway should be constructed further east and save the Valley.

Mrs. D. Posgate stated, in giving evidence in opposition to the undertaking, that she does not want the Red Hill Creek Valley to be used for the freeway since, in her opinion, the Valley is an irreplaceable asset of the City of Hamilton.

Mr. Ian Reid, representing himself as well as the Hamilton Naturalists' Club, gave evidence in opposition to the proposal.

It was the opinion of the Club that the Red Hill Creek Valley remains an excellent habitat for a wide variety of flora and fauna and should not be used for the freeway route.

In expressing his personal opinion, he summed up by stating that the freeway could have irreversible environmental effects on the Red Hill Creek Valley.

Mr. R. Mackenzie, the M.P.P. for Hamilton East, gave evidence in opposition to the undertaking. He stated the opinion that the East Mountain Industrial Park is in the wrong place and, in any event, did not know how a freeway through the Red Hill Creek Valley could assist in the development of that industrial park and would instead ruin the Valley.

Mrs. Helen Gazik, who resides on the East Mountain, gave evidence in opposition to the undertaking. She stated that she and her family make use of the Valley and that she does not want it destroyed by construction of the freeway and that an alternative route should be found.

Dr. B. Palmer, in giving evidence in opposition to the undertaking, simply stated that in his opinion the proposal is unnecessary and would only serve to increase pollution in the City of Hamilton

Mr. Wm. Randall gave evidence in opposition to the undertaking. His chief concern was that another route should be found and that the Red Hill Creek Valley should not be used as the route for the freeway.

Mrs. Joy Zelinski, who appeared to give evidence in opposition to the proposal, stated that the proposed freeway "will be coming down the side of my house and also, I will have the Greenhill access route in my back yard". She expressed her concerns about the traffic noise that she feels she will be subjected to. Mrs. Zelinski was also concerned about the possible reduction in the value of her home being so close to the proposed freeway. She further stated that the Valley should be saved and not destroyed by a highway.

Mr. James E. Wilson, a realtor and a resident of Hamilton living on the Mountain, appeared in opposition to the undertaking. His chief evidence was to the effect that money should not be spent on this proposal when, in his opinion, there are other more satisfactory roadway alternatives available such as a perimeter road.

Mr. Douglas Decker, a member of the Hamilton and District N.D.P. Area Council, together with Anne Hughes the Council's researcher, gave evidence in opposition to the proposed undertaking. Their evidence outlined the history of the proposal and was restricted to the use of the Red Hill Creek Valley as the location of the North-South portion of the undertaking since they have no objection to the East-West section.

In their evidence they stated that since in 1929 the City of Hamilton purchased 645 acres together with further purchases made in 1950 and 1951 for park purposes in the Valley that the Valley should be preserved for its original purpose as a natural park. In addition, they pointed out that the Council of the City of Hamilton agreed by resolution to retain the natural character of the Red Hill Creek Valley.

Anne Hughes, who is a qualified planner, described in detail her examination of the Valley as an open space and a natural environmental area which should be preserved. In this regard the Board does not feel it necessary to detail this evidence.

The position of the N.D.P. Area Council may be summed up as follows: a freeway located in the Red Hill Creek Valley would greatly reduce the available acreage of land for park purposes and downgrade the quality of the remaining open space.

Sheila Copps, M.P. for Hamilton East, appeared to give evidence in opposition to the undertaking. She stated that her constituency is bordered by the Red Hill Creek Valley.

The tenor of her evidence was to the effect that politicians should cherish the things that are unique to their community and that one of those assets is the Red Hill Creek Valley which, even in its current state of disrepair, provides a buffer and an escape and a haven in the industrial City of Hamilton. She stated her opinion was that using the Red Hill Creek Valley for the proposed freeway would remove the Valley forever as a beautiful natural resource and should not be approved.

The Hamilton Region Conservation Authority was represented at the hearing by its counsel, Mr. H. Turkstra and Miss J. Grahek.

Miss Grahek called as her witnesses, Mr. B.W. Vanderbrug, Mr. J. Coates and Mr. W. Andrew, while Mr. Turkstra called as his witness Mr. A. McCoy.

It was made clear from the outset of this portion of the evidence that the Hamilton Region Conservation Authority was not in opposition to the East-West alignment of the undertaking but was unalterably opposed to the North-South portion with particular reference to the Red Hill Creek Valley and the King's Forest area being used in any way for the freeway.

Mr. B.W. Vanderbrug is the General Manager of the Authority and has been employed by the Authority since 1966 and was appointed as its General Manager in 1970. He appeared at the hearing with express instructions from the Authority to oppose the North-South route as proposed. It is pointed out that Mr. Vanderbrug was a member of the Working Committee. During the course of his evidence he stated his opinion that his contributions to the considerations of the Working Committee did not receive the kind of attention that he deemed proper. In this regard he filed with the Chairman of the Working Committee a minority report dated June 5, 1979, a copy of which was filed as Exhibit 480 in these proceedings. In this report Mr. Vanderbrug briefly outlined his concerns with the use of the Valley and King's Forest area for road purposes.

In reviewing all the other evidence in respect of the Working Committee, the Board concludes that while the Committee did consider his concerns, Mr. Vanderbrug appeared to be of the opinion that the position of the Conservation Authority should have been given preference over other factors considered in the Environmental Assessment process.

Under cross-examination by counsel for the proponent in this regard, Mr. Vanderbrug agreed that the Conservation Authority does not really deal with the issue in the same balance that the Region has to since the Authority looks at it from the environmental perspective.

Mr. Vanderbrug filed a summary of the main reasons why the Authority opposes the use of the Red Hill Creek Valley for road purposes (Exhibit 486). This exhibit is repeated here since it provides a good summary of his evidence.

"1. The Valley is the only large tract of regional open space in East Hamilton. It will perform basic recreational functions, but more importantly, it will provide a major open space link between two significant natural resources, i.e. the Lake Ontario waterfront and the Niagara Escarpment.

2. The Valley is a very important ecological and environmental open space area and ranks fourth among forty-four environmentally sensitive areas in this region. The Valley will perform some recreational functions, but its prime significance is a large tract of open space where people can retreat from the noise and congestion of modern times. A major highway just cannot co-exist with such an area.

3. The natural cover, presence of water and adequate food sources give the Valley an abundant wildlife population. A highway would reduce this wildlife carrying capacity.

4. In an urban setting with its concentration of people and engines, it is important that wherever possible, green natural areas be maintained to provide air pollution relief.

5. More frequent high volume flows are expected in the watercourse if a highway were constructed. Flow velocities are also expected to increase. This will increase the environmental risk of disturbing the highly toxic sediment within the Windermere Basin.

6. The availability of major open space areas will be of increasing importance to Hamilton now and more so in the future as declining energy resources affecting behaviour patterns will place a premium value on outlets close to population centres for such activities as nature observation and hiking.

7. Buffer strips and open space wedges are an effective means of separating local communities in a large urban centre. These areas not only create a more attractive urban setting but also places open space closer to many of its users.

8. A measure of a city's worth and greatness is its respect for nature and the preservation of significant natural areas within its boundaries. These areas, once protected, will enhance urban man's ability to live in harmony with its natural surroundings."

In regard to 1 above, Mr. Vanderbrug agreed on cross-examination that the link referred to has already been broken by the Queen Elizabeth Way.

Mr. Coates has been employed by the Hamilton Region Conservation Authority since 1966 and has been its Assistant General Manager since 1977. In addition to acting as General Manager when the General Manager may be absent Mr. Coates is responsible for dealing with the approval or otherwise of permit applications to the Authority such as is required in this case.

Mr. Coates outlined his concerns with the information provided in the application to the Authority by the Region (a copy of this application was filed as Exhibit 291).

During the course of his examination and cross-examination it became clear to the Board that a great deal of the information and details required could not be supplied until final plans and specifications have been prepared which of necessity cannot sensibly be done at this stage of the process.

The Board does not feel it necessary to detail Mr. Coates' evidence but suffice it to say that his evidence was directed to flooding problems, the fill and construction application referred to above and other requirements of the Hamilton Region Conservation Authority.

Mr. Stacey has been Vice-Chairman of the Authority since 1980 and a member since 1973.

In his evidence he gave the opinion that there is a basic philosophical difference between the view of the Authority and that of the Region. In this regard he stated that the Authority feels that there is incompatibility between a road and a viable public open space in the Valley. He further expressed the opinion that while the Region feels that the road and open space can be accommodated, the Authority feels that the two are not compatible.

Mr. Andrew has been a member of the Hamilton Region Conservation Authority since 1979. He resides on Greenhill Avenue near the Red Hill Creek Valley. He stated that he has watched adverse changes in the Valley for the past 15 years and is concerned that construction of the proposed freeway will completely destroy the Valley for wildlife and public open space. In addition, he expressed the opinion that the Highway 20 alternative would have been a much better one since, as far as he is concerned, it would go through the least sensitive area.

Mr. McCoy has been Chairman of the Hamilton Region Conservation Authority since 1981 and a member since its inception. Mr. McCoy operates a foundry at Peter's Corners on Highway 5 as well as a farming operation.

In his opinion an expressway using the Red Hill Creek Valley will destroy an irreplaceable community asset and deprive future generations of its use. His further evidence concerned his attempts to create an industrial park on part of his holdings at Peter's Corners which resulted in an Ontario Municipal Board hearing which Board did not approve his application.

In addition to this evidence in opposition to the North-South portion of the undertaking, it is pointed out here that Mr. Vanderbrug in his evidence stated that while invited to do so the Authority did not participte in consideration of the "Proposed Recreation Master Plan for the Red Hill Creek Valley" (Exhibit 277 and referred to elsewhere in this decision) since the Authority felt that it would compromise its position in opposition.

In considering the evidence in opposition by the Hamilton Region Conservation Authority, the Board is mindful of the Authority's position that there can be no proper solution to other uses in the Valley once a freeway is constructed. The Authority's position simply stated is that the proposed freeway in the Valley is entirely incompatible with its use for open space purposes.

Counsel for The Save the Valley Committee called eight professional (expert) witnesses:-

1)	Richard M. Soberman	- Transportation Planning Issues
2)	H. Lukin Robinson	- Economic Impact
3)	George B. Priddle	- Impact on Social and Natural Environment
4)	Robert S. Dorney	- Impact on Social and Natural Environment
5)	Michael J. Webber	- Industrial Growth and Employment
6)	Eugene Koczkur	- Impact on Social and Natural Environment
7)	Michael Finochio	- Demand for Residential and Industrial Property in the Region
8)	J. Prtenjak	- City of Hamilton Building Permits 1983 and 1984

Richard Soberman is a civil engineer with a Ph.D. in Transportation Planning. At the present time he is Director of the Joint Program in Transportation and Professor of Civil Engineering at the University of Toronto, as well as Professor of Environmental Studies at York University.

Dr. Soberman's evidence is detailed in his report filed as Exhibit 496. He stated that he did no studies himself but that his review consisted primarily of the "appropriateness of the planning process (including public participation), and the methodological procedures used to establish need". His evidence-in-chief occupied one day of the hearing while the cross-examination by counsel for the proponent took up two days of the hearing. Here again there were several interruptions by motions and arguments relating to procedures, which contributed nothing to the hearing.

One of Dr. Soberman's concerns related to what he considered the placing of too much emphasis on "precision" as opposed to "sketch planning" techniques by the proponent. He contended that this was due to a budgetary limit being put on planning studies and as a result broader based and less detailed analysis techniques would have been more appropriate. However, taking into consideration his agreement on cross-examination that different experts might reach different conclusions from studies as well as reviewing all the other evidence adduced in this regard, the Board is doubtful that different conclusions would have been reached particularly in view of the fact that Dr. Soberman presented no evidence that different kinds of studies would produce different results. While he gave lengthy evidence concerning what he considered to be deficiencies in the methodological approaches used by the proponent, the Board does not feel it necessary to detail these in this decision but suffice it to say that he felt that greater emphasis should have been placed on utilization of existing road systems as an alternative to building more roads. In this regard the Board accepts the evidence of Mr. McLean, referred to elsewhere in this decision, that the City of Hamilton has used up all the principal traffic measures available to it to make maximum use of the available capacity. In addition, Dr. Soberman agreed on cross-examination that Mr. McLean was conservative in what he did.

In addition to his concerns related to the traffic capacities of the roads, Dr. Soberman expressed concern that the proposed freeway assessment by the proponent was more concerned over justification as opposed to assessment of need. He contended that the proponent in this regard, did not employ a sufficient number of alternative land use distributions that might have resulted in different conclusions. He stated his opinion that the proponent gave insufficient attention to land use "responses" that could be used to reduce transportation deficiencies, although he did agree on cross-examination that a number of alternative land uses were considered as part of the Official Plan process (Page 14,645, Volume 69 of transcript) which resulted in the approved Official Plan (Exhibit 70).

Dr. Soberman, in giving his evidence, also criticized the public involvement process employed by the proponent during the Environmental Assessment. He contended that there should have been some public representation at least through an "open planning technique" if not through the "truly participatory technique". It is pointed out here, as well as elsewhere in this decision, that the proponent held several public forums as the process proceeded and that this hearing itself provided further opportunity for public participation. In this regard the Board is satisfied that the proponent provided ample opportunity for public involvement in all the circumstances and, in fact, went well beyond the statutory requirements for such involvement.

Dr. Soberman's evidence and cross-examination, while using three days of the hearing, did not, in the Board's opinion, in any way convince the Board that the methodologies used by the proponent in its related studies were deficient or directed only to justification as opposed to need as he contended.

H. Lukin Robinson is a graduate of the University of Geneva, Switzerland, in economics. At present he engages in economic consulting, as well as being a part-time instructor in the Division of Social Science of York University. His experience covers the field of economic analysis and projection and demographic projections and analysis.

As Mr. Robinson's evidence unfolded there was no doubt that he is well-versed and experienced in the field of demographics. His examination-in-chief, cross-examination and re-examination took up the better part of seven hearing days due in part to his lengthy answers to questions in many instances by going into great details of the theory behind his answers.

Mr. Robinson, unlike some of the other witnesses on behalf of The Save the Valley Committee, not only reviewed the Environmental Assessment and reports of the proponent but did considerable detailed work of his own to arrive at different forecasts of such things as future population projections and labour force participation rates. In this regard Exhibits 506A and 506B were filed which in fact are a detailed summary of his evidence.

He began his evidence-in-chief by setting out what he termed his seven conclusions. These seven conclusions are summarized as follows:-

1) That a population of 445,000 for the Region is acceptable for planning purposes.
2) That the allocation of that population to different parts of the Region cannot be used to justify the "expressway" because the planners for the proponent in allocating that population assumed

that the "expressway" would be built and that is not a proper way of proceeding.

3) That the population of 550,000 will never be reached and that after the population reaches 445,000 it will begin to decline.

4) That the Official Plan of the Region is intended to accommodate a population of 550,000 in different areas of the Region and since only 445,000 need to be accommodated there are alternative ways of accommodating the 445,000. The proponent's allocation used to forecast traffic demand, particularly across the escarpment, is only one of the possible allocations that would be consistent with the Official Plan. In this regard Mr. Robinson stated "so, the Region's Official Plan provides you with alternatives, but in terms of possible traffic demand these alternatives, as far as I can see, have not been explored."

5) That there are benefits claimed from the building of the "expressway" in terms of additional development of all types and that since these benefits, as presented, extend over a period of 40 years, a forecast stretching that far into the future has an enormous and inevitable element of uncertainty about it."

6) That there is an overwhelming emphasis on industrial development in the proponent's submissions and "if the Region wants to assure the employment that is necessary to provide for the population of 445,000 its emphasis must be on the development of services, at least as much and perhaps more than on the development of industry of goods production."

7) That the traffic model used by the Region was faulty.

On this last conclusion there was some discussion concerning Mr. Robinson's expertise in the field of traffic.

Mr. Robinson's evidence concerning population projections for the Region was lengthy and detailed upon which the Board does not feel it necessary to comment in any depth. He stated that he had information from the 1981 Canada Census available to him which the Region did not have available to it at the time it did its work. From a review of this census information and a number of other sources, he concluded that the population of the Region will be somewhere between 420,000 and 445,000 in the year 2001 with the population of those over 15 years of age being somewhere between 350,000 and 365,000 in the year 2001. In any event, he did agree that a population of 445,000 is acceptable for planning purposes. However, he concluded that the population of 550,000 as indicated in the Official Plan will never be reached and after it reaches 445,000 it will begin to decline. While he did agree that a 445,000 population is reasonable for planning purposes his projection for the population of the Region in the year 2001 was 420,000 (Table 1 of Exhibit 506B).

Mr. Robinson then went on to give evidence concerning population allocations. It was his contention that since the Official Plan is based on a population of 550,000 that "the Official Plan allows for great flexibility in allocating the projected population to the different areas of the Region within the development capacity of those areas as specified in the Official Plan." From this he concluded that alternative allocations of the population of 445,000 can be considered as well as the allocations made by the Region. In this regard he expressed the opinion that such allocations are to a large degree subjective and that the Region in making its allocations assumed the construction of the undertaking.

Mr. Robinson then dealt with households, family and non-family households as they relate to translating the projected population into projected households. From his point of view determining the number and type of households is important in planning the areas where family and non-family housing would be located and the required number of new dwellings by type, including possible redevelopment which is more likely to supply non-family housing than family housing. Without going into the details of Mr. Robinson's projections he stated that the average household size has declined and as a result the number of households in the Region has increased faster than its population. In this regard he expressed the view that his projection of households, based on the 1981 household headship rates, differs sufficiently from the Region's and that it should be reviewed.

Again, without going into the details of how Mr. Robinson arrived at his projections, it was his conclusion that the population allocated by the proponent above the escarpment is 11,000 too high whereas the population allocated to below the escarpment is 11,000 too low. Further to this he said that the Region had overestimated the number of family households and underestimated the number of non-family households and as a result the Region has "overloaded the areas which, in their judgment, are appropriate for family housing and underloaded the areas appropriate for non-family housing". From this he concluded that the Region allocated too many people to the Mountain area and too few people below the Mountain and hence it was his evidence that the proponent has overestimated the demand for required escarpment crossings. These projections concerning population allocations referred to above relate to the City of Hamilton and he stated that similar calculations could be made for other parts of the Region.

However, he did somewhat temper his evidence concerning the number of people that in future will live above the escarpment when he stated that it is a planning decision that involves additional households, new dwellings to accommodate them and the services to be supplied.

At this point Mr. Robinson stated that since the population of the Region has been set at 445,000 which, in his opinion, may only be reached some 10 years after the year 2000, the Official Plan, based on a population of 550,000, allows for great flexibility in the allocation of population to different areas of the Region.

The next part of Mr. Robinson's evidence was concerned with the labour force and employment in the Region. While this part of his evidence took a considerable length of time as well, as a result of his review of Environmental Assessment and supporting documents, it was his evidence that all the labour force and employment data used as input to the traffic model raises so many doubts that it cannot be relied on to tell whether the "expressway" should be built or not. In giving his evidence in this regard he pointed out several areas where, in his opinion, the data used were in error. Some of these areas were:-

1) Labour force participation rates projected for the year 2001 are too low.

- Male labour force projected by Mr. Robinson	134,900

-	Male labour force projected by Region	133,455
-	Female labour force projected by Mr. Robinson	107,650
-	Female labour force projected by Region	87,000

It was his evidence in this regard that since the travel characteristics of women are not the same as those of men that the modal split (mode of travel) will change consequently resulting in a different number of vehicles using the roads.

2) The Region assumed in its projections an unemployment rate of 12 per cent whereas it was Mr. Robinson's opinion that 6 per cent is a more satisfactory rate.

It was his opinion that since a 12 per cent rate is too high there is a tendency to assume no unemployment.

3) That since the labour force participation rates projected by the Region were understated more jobs will be required than assumed in order to achieve the projected population.

The last area covered by Mr. Robinson concerned industry and economic development. In giving this portion of his evidence Mr. Robinson had several criticisms of the proponent's documentation which, for purposes of this decision, the Board does not feel necessary to comment on. Mr. Robinson's evidence, based on his knowledge and experience, was that the Region's growth must be sought in the further expansion of the service industries while not neglecting the goods-producing industries. Based on all the data he reviewed and considered the emphasis of attention, effort and money should be on services since, in his opinion, that is where the growth prospects are to be found.

Under cross-examination by counsel for the proponent Mr. Robinson agreed that there is an element of uncertainty relating to any forecast and that forecasts should be better if one has knowledge of local conditions and policies. He also agreed that a city the size of Hamilton should be offering choices of where people can live and that he did not take the element of choice into his considerations.

In regard to Mr. Robinson's direct evidence on the question of flexibility in the Official Plan concerning different possible allocations of population to various areas of the Region when it was pointed out to him that considerable sums of money have been spent servicing the area above the Mountain, he agreed that the flexibility of the Official Plan would be limited.

George B. Priddle is Chairman of Man-Environment Studies at the University of Waterloo and has a Ph.D. from Clark University. His evidence in opposition to the undertaking dealt mainly with the Red Hill Creek Valley and his opinion that the proposed road through the Valley would destroy the Valley as an open space and recreation area. He expressed this opinion based on an inspection of the Valley coupled with his experience in designing and formulating plans for such organizations as Parks Canada and the Provincial Parks Council. He stated at page 15,985, Volume 76 of the record that "the lower reaches or northern half of the Valley would not have any capability for passive recreation". He expressed his concern that recreational space in the east end of Hamilton is already limited in quality and quantity as opposed to the west end of the city. In this regard he stated that the Proposed Recreation Master Plan (Exhibit 277) does not address the problems of the quality of the space as an adequate open space area.

However, on cross-examination by counsel for the proponent, he reduced his concerns somewhat when he agreed, at page 16,105, Volume 76 of the record, that there will be a substantial acreage of open space in the east end of Hamilton although he was still concerned with the quality of a lot of that acreage. He also agreed at pages 16,160 and 16,161 that there could be some recreational uses with the road in place but he expressed doubts about possible passive use. He further agreed that if a road is properly designed it can be a pleasure to drive through scenic areas.

In his witness statement (Tab 4 of Exhibit 407B) Dr. Priddle stated, in reference to the Mount Albion area, that it would be obliterated by the proposed road. This he reduced on cross-examination to would be "seriously impacted". He also agreed that there is a surplus of open space in Hamilton.

In addition to giving evidence on the recreational and open space facets Dr. Priddle also commented on the public participation in the process. His major concern on this aspect was that the public responses obtained by the proponent had little or no impact on the decision making process. At page 16,042, Volume 76 of the record he stated "I feel you can't put any stock in that kind of public participation exercise. I feel it is non-participation and I take it to be a misuse of the public."

Here, again, the Board points out that the public had ample opportunity to participate in the process and in any event this hearing itself provided further opportunity to participate.

It is noted at this point that a great deal of the time of this witness' appearance was taken up by submissions of counsel regarding his qualifications to give evidence on certain aspects, particularly in reference to "climatology". In any event, the Board did not consider this aspect of his evidence to be helpful and in the circumstances does not feel it necessary to comment on it.

As was the case with Dr. Soberman's evidence, Dr. Priddle's evidence was restricted to criticism of the proponent's submissions and no alternate suggestions were offered.

His evidence may be summed up by his statement that "the road should not be constructed in the Red Hill Creek Valley".

Dr. Dorney is professor at the School of Urban and Regional Planning, University of Waterloo and holds a Ph.D. from the University of Wisconsin, Department of Veterinary Science and Wildlife Management. As well as his teaching experience he has had practical experience in Environmental Assessments.

During the course of his evidence he expressed ten concerns with the proponent's Environmental Assessment. Six of these concerns had to do directly with two sanitary landfill sites, the Upper Ottawa Street and Brampton Street landfill sites. In regard to these two sites he stated they were not identified by name or location in the Environmental Assessment documentation but he agreed on cross-examination that these sites were named in Exhibit 57 on Figure 57 (Upper Ottawa Street) and Figure 37 (Brampton Street) but not "demarcated". He further agreed that the sites were given some consideration by the proponent. However, he was not satisfied that enough consideration and study had been given to them in order to determine the possible adverse effects, such as leachates and hazardous wastes, if any, the construction of the proposed road would have on them. Dr. Dorney contended that since, in his opinion, the proposed road would touch or come close to the sites that further detailed studies are necessary.

It is pointed out here that Section 45 of the Environmental Protection Act (R.S.O. 1980, c. 141) would be applicable. This section reads as follows:-

> "No use shall be made of land or land covered by water which has been used for the disposal of waste within a period of twenty-five years from the year in which such land ceased to be so used unless the approval of the Minister for the proposed use has been given."

Another of his concerns had to do with the possible relocation of a section of the Trans Northern Pipe Line which runs from Hamilton to Nanticoke, and may have to be relocated in some areas due to the road construction. He stated that he could find no evidence of how this issue is to be resolved nor of its costs if to be relocated. This pipe line, later in the hearing, proved to be a non-issue when the proponent filed Exhibit 593, an agreement between the City of Hamilton and Trans Northern Pipe Line Company which, among other things, requires the company to remove and pay for relocation of the pipe line, if necessary.

Dr. Dorney was further concerned that microclimate studies were not done in order to better show the quality of the general air before and after the construction of the proposed road. In this regard, as well as in other instances, Dr. Dorney agreed on cross-examination that he had not been present during the hearing for much of the proponent's evidence nor had he read all the record or documentation.

Dr. Dorney was also concerned that better routing of the proposed road could have been chosen that, in his opinion, would reduce or eliminate many of the environmental concerns. In this regard he suggested several alternatives which the Board does not feel it necessary to comment on in this decision.

Dr. Dorney's last concern had to deal with the issue of the construction phasing which he contended should be phased in such a way that the marshes in the Red Hill Creek Valley should be retained until the last part of the proposed construction is finished. In this connection it was his opinion that the North to South phasing should be reconsidered in order "to balance the environmental advantages of the two issues vis-à-vis phasing; that is control of flooding versus marsh retention or a sink for toxic run-off".

Here, again, the evidence of this witness consisted entirely of criticism of the proponent's Environmental Assessment and offered little or nothing in the way of showing that had his suggestions been carried out that the results would have been any different.

Dr. Michael J. Webber is a professor and chairman of the Department of Geography at McMaster University and holds a Ph.D. from the Australian National University.

Dr. Webber's evidence centered on employment and employment projections in the Bayfront industrial area in Hamilton together with the impact on employment if the undertaking is constructed.

As far as the impact on employment Dr. Webber's evidence was that, in his opinion, the proposed facility would contribute an increase of 10 jobs per year and in any event less than 20 jobs per year apart from jobs directly created by construction of the undertaking.

In connection with the Bayfront industrial area he stated that it was his opinion that many of the users of the facility would be those employed in that area. He attempted to show that the proponent's estimate of 45,000 jobs in that area of the Region by the year 2001 was overestimated. Dr. Webber estimated that there would be only 25,000 jobs in that area during the 1990's. He based his estimate on information from the 13th Edition of Scott's Industrial Directory, personal contacts and his own general knowledge of the steel industry, which is the predominant industry in the Bayfront area. However, on cross-examination, it became quite apparent that the present employment figures and estimates of future employment used by Dr. Webber were unreliable. Even after several attempts to get better information by Dr. Webber and by counsel for The Save the Valley Committee who obtained letters from the personnel offices of the companies involved, the Board considers Dr. Webber's estimate of the future employment in the Bayfront industrial area to be entirely unreliable.

In giving further evidence Dr. Webber expressed the opinion that there was no shortage of land available for industrial purposes in the Region.

In further support of his opinion that the Region's estimate of job opportunities is optimistic Dr.Webber contended that since the area, particularly the City of Hamilton, is dominated by heavy industries mainly in steel and related business, that this results in the inability to set up new jobs. In addition, he predicted a slow growth of the steel industry generally which will not be too helpful in creating new jobs and in fact he further stated that modernization of the industry will have the potential effect of reducing jobs. In this regard he did agree, on cross-examination, that it is difficult to predict the future of the steel industry as there are so many factors that can affect it.

Dr. Webber, in any event, expressed the opinion that the undertaking is an "ineffective way of bringing jobs into the Region", but did agree that access is important to an industrial location.

During re-examination Dr. Webber said, in his opinion, since there is no real demand for commercial development in the Limeridge area that it should remain residential.

Although Dr. Webber's evidence was rather lengthy and included several interruptions by motions and procedural arguments, the Board does not feel it necessary to detail it any further since the content of his evidence was covered by several other witnesses in these proceedings.

Dr. Eugene Koczkur is director of Air Environment and Noise Studies with Senes Consultants Limited. He holds a Ph.D. in mechanical engineering from the University of Toronto.

Two Curriculum Vitaes (C.V.'s) were filed by this witness, the first was included with his initial witness statement in Exhibit 407(A) and the second as Exhibit 553. Much was made of this in cross-examination by counsel for the proponent. The evidence in this regard was that the C.V.'s were not tailored for this hearing but were taken from Dr. Koczkur's firm's files with the second one (Exhibit 553) more accurately reflecting his experience relating to the areas of his evidence at this hearing concerning air quality and noise. It was revealed during the course of his evidence that Dr. Koczkur's major work experience concerned air quality although the evidence relating to noise took considerably more time during his evidence.

Here, again, this witness' work consisted of a review of the reports and work done by the proponent on air quality and noise without any original work of his own. Much of his evidence had to do with his opinion that the proponent's work and reports regarding these two components was deficient in many areas.

In respect of the air quality aspects he maintained that the meteorology used was too optimistic, that the potential dust levels will be higher than predicted and that the Valley effects may aggravate the air pollution problem. The Board does not feel it necessary to go into any great detail regarding Dr. Koczkur's evidence. As far as air quality is concerned he stated that since Hamilton is noted for frequent occurences of poor dispersion conditions that without further studies it is not possible to properly assess the impact of the proposed road on air quality, particularly in the Red Hill Creek Valley. In this regard he stated that Dr. Barton (a witness for the proponent) chose a wind speed of 6 meters per second for his calculations which, in Dr. Koczkur's opinion, would indicate a good dilution rate. As a result of using this wind speed he stated that Dr. Barton's "concentration estimates will therefore be lower than should be in my opinion realistically" (page 18,987, Volume 86 of the record). His evidence was that from his review of information available using a wind speed of 4 meters per second would have been more in line with the long-term measured wind speeds in the Hamilton area.

He further stated that Provincial standards for suspended particulate matter apply to a size range up to 44 microns whereas it was his evidence that studies by the proponent ignored particulates greater than 15 microns.

It is noted that there was much repetition of this evidence (as well as in the noise portion) due to the questioning of both counsel. However, there was nothing to suggest that the results of the proponent's studies would have been any different had all the additional work suggested by Dr. Koczkur been done.

The other aspect of Dr. Koczkur's evidence dealt with noise. As with the air quality aspect he felt that the proponent's studies and assessments were lacking in many ways. It was his opinion that a preferred approach would have compared the noise impact for each alternative route so that the relative merits of each route are clearly indicated. He also stated that the range of the accuracy of noise prediction has not been given adequate consideration and as a result, in his opinion, expected noise levels could be higher than predicted. He further stated the opinion that the success of the noise attenuation predicted by the proponent is dependent on the location of noise barriers or berms. He suggested that the absence of such detailed information, gives no assurance to the people residing along the route, that the resulting noise levels will be acceptable. If the undertaking is to be approved Dr. Koczkur would like to see a commitment to implement other remedial measures in the event that the degree of noise attenuation is not adequate.

In his evidence he stated that, from his review of the Environmental Assessment, it is difficult to determine the noise impact on homes adjacent to or near the proposed roads without noise contours being drawn. (On this point it was the evidence of Dr. Lightstone, for the proponent, that such contour lines would be difficult to draw but, in any event, the information was available from other sources although perhaps cumbersome to get at). In any event Dr. Koczkur on cross-examination still maintained his position that although such contour lines are difficult to draw and perhaps full of assumptions, that having them shown on maps would give people a better indication of how they might be affected by noise from the proposed roadways.

Dr. Koczkur was also concerned about the effect of noise on sleep with particular reference to the impact of short-term or peak noise levels which could result in problems for a number of residents. In this regard it was his opinion that this concern has not been adequately addressed in the Environmental Assessment.

Dr. Koczkur was also of the opinion that the predicted increase of 30 decibels from the present "quiet" in the Valley would permanently change the character of the Valley if the proposed road is constructed.

Considerable time was taken up reviewing various acceptable noise levels suggested by several authorities, for example, the Ontario Ministry of the Environment and Canada Mortgage and Housing Corporation. As a result of these considerations Dr. Koczkur agreed on cross-examination that both of these authorities foresee the possibility of homes being built in areas where the sound levels exceed 55 decibels.

From a thorough review of Dr. Koczkur's evidence the Board does not feel it is too helpful by way of assisting in this decision since it primarily consisted of opinions that the Environmental Assessment was lacking in many respects concerning air quality and noise and only suggested further studies for which there was no real evidence that the results would be changed in any way.

Mr. Michael Finochio is a realtor in the City of Hamilton and a member of the Hamilton Real Estate Board. His evidence was, from his recent experience, that there is a large demand for residential properties in the north end of Hamilton (the lower city) for family purposes. In his further evidence he expressed the opinion that the Mountain Industrial Park is in the wrong location and should be rezoned for housing.

Miss J. Prtenjak, a researcher employed by counsel for The Save the Valley Committee, was simply called as a witness to file exhibits. These exhibits were Exhibit 591 being building permits issued by the City of

Hamilton in 1983 and 1984 and Exhibits 592A and B being 41 photographs of properties near to the proposed undertaking.

Miss J. Grahek, acting as counsel for The Save the Valley Committee Inc., called 12 citizen witnesses in opposition to the undertaking with particular reference to the North-South component as it relates to the Red Hill Creek Valley. This Committee was formed in May 1979 and was incorporated early in 1984. It is noted here that this Committee formed the major opposition at the hearing with emphasis on the use of the Valley for road purposes.

As part of their opposition, and as shown in the style of cause, the Committee asked the Minister of Municipal Affairs and Housing to refer to the Ontario Municipal Board a request to amend the Official Plan for the Hamilton-Wentworth Planning Area, which would have the effect of deleting references to the proposed East-West, North-South Transportation Facility from the plan.

Mr. Ron Upsdell, now a resident of Stoney Creek, was the first chairman of The Save the Valley Committee. He explained that the Committee was formed primarily because of concerns as to whether the road was needed and that it would be routed through the Valley which, in his opinion, would be "absolutely destroyed by a freeway". Mr. Upsdell further expressed concern that his Committee was not involved in the selection process. On cross-examination he agreed that The Save the Valley Committee did attend on the Council of the Region to state their opposition with reasons and in addition they attended several of the public information sessions held by the Region. According to this witness he felt that "the full story was not being told by the Region".

The Committee was given the opportunity by the Region to participate in the review of the Proposed Recreation Master Plan - Red Hill Creek Valley (Exhibit 277) but as was the Hamilton Region Conservation Authority's position, Mr. Upsdell stated that the Committee felt their opposition to the freeway would be compromised by such participation.

Mr. John Ellis is the present chairman of The Save the Valley Committee and has been a member since its inception.

Mr. Ellis' evidence to a large extent simply enlarged on the evidence of Mr. Upsdell in outlining the activities of the Committee. The Save the Valley Committee was quite active in its opposition to the undertaking particularly as it relates to the section proposed for the Red Hill Creek Valley. The Committee made several submissions to the Council of the Region and committees thereof. In this regard they had a Red Hill Creek Recreation Plan (Exhibit 467) prepared by urban geography students in 1982. This plan was prepared to show what uses could be made of the Valley but, as with a lot of other exhibits filed in these proceedings, the authors were not present to be examined and cross-examined.

In addition to the representations made to the Council of the Region and its committees the Committee attempted to gather support from the general community by use of the press, radio, cable television, information brochures and attendance at the public information sessions held by the Region.

On cross-examination by counsel for the Region Mr. Ellis agreed that his Committee was never denied the right to make submissions to the Region whenever they asked to do so. He also agreed that most of the King's Forest area would not be destroyed by the road and that the lower Valley is not in the best condition.

In spite of all the efforts of The Save the Valley Committee to gain substantial support for their position the total membership, as near as can be determined from the evidence, was 376.

Although questions concerning the membership of the Committee took a considerable amount of time it is not an important consideration of the Board in arriving at its decision.

Joyce Robb is a member of The Save the Valley Committee and chairman of its Public Relations Committee.

In giving her evidence Mrs. Robb stated that she lives on Glencastle Drive at the edge of the Valley and that the proposed freeway would be directly beside her house and would result in a detrimental effect on the quality of her neighbourhood. She explained that she and her family make extensive use of the Valley for recreational purposes and wants to see it kept in its entirety as an open space area.

She was of the opinion that the soccer field in the Valley would be destroyed by construction of the freeway. In this regard the evidence of Dr. Coleman was that none of the soccer fields would be destroyed but that one of them would have to be turned 90 degrees to fit properly into the land left after construction of the road. When this was pointed out to her by counsel for the Region she stated that the soccer field would be too close to the road for proper use.

Ryan Robb is the 12 year old son of Joyce Robb. This brief evidence was to the effect that he and his friends make use of the Valley for recreational purposes and are of the opinion that their access to play areas would be cut off by the freeway.

Judith Wagner is a member of The Save the Valley Committee and resides on Glencastle Drive at the edge of the Valley. In her evidence she stated that she and her family make extensive use of the Valley as a recreation area and expressed her concern that the undertaking would eliminate their access to the Valley. She stated that the Valley should not be destroyed as a natural area.

Calvin Burns, who also resides on Glencastle Drive, is a police officer with the Hamilton-Wentworth Regional Police. In his evidence he expressed the opinion that "in general the traffic flow in Hamilton moves along without any serious problems". In addition to his evidence concerning traffic he stated that his family makes good use of the Valley as a recreation area and would not like a freeway to interfere with this since the freeway would be very close to his house.

Robert Savelli resides on Carwyn Crescent in the west end of Hamilton below the Mountain in close proximity to Highway 403. He moved to this location prior to the construction of the highway. His evidence was that the noise from the highway is disturbing and that the highway has reduced the "quality of life in his neighbourhood".

Ian Ross is a resident of Glencastle Drive. Mr. Ross is an automobile salesman who, in giving his evidence, stated that his employment requires him to travel through Hamilton "all day long during the working hours" and that he has not experienced any real problems with traffic congestion and as a result the proposed road is not necessary in his opinion. In addition to this he stated that his family uses the Valley and that it should remain as open space.

Elizabeth Savelli resides on Lucerne Avenue on the west side of the Valley and is a member of The Save the Valley Committee. In giving her evidence Mrs. Savelli stated that her family makes extensive use of the Valley for recreational purposes. She also expressed concern that the Committee did not have any real participation in the decision making process that led to the approval by the Region of the undertaking. This witness also stated that the Valley should be kept in its entirety as open space.

John Lee is a resident of Rothesay Avenue on the east border of Gage Park and is the founding president of the King's Forest Orienteering Club which makes extensive use of the Valley for its purposes. The Club has about 65 members. In his evidence he expressed the opinion that the freeway will very much limit his Club's proper use of the Valley. In addition to this Club's use of the Valley and, in his capacity as a physical and health education consultant of the Hamilton Public Board of Education, he felt that the proposal would greatly reduce the recreational uses of the Valley. He did agree, on cross-examination by counsel for the proponent, that it would still be possible to conduct cross-country running, for example, in the Valley after the road was constructed.

Agostino Cipolla has been a resident of 160 Cannon Street West in Hamilton for the past 34 years. His brief evidence, given through an interpreter, was that the noise from truck traffic on his street from 4:00 o'clock in the morning until 4:00 o'clock in the afternoon, as well as such traffic causing his house to shake, make it impossible for him to sleep.

Robert Allan resides at 65 Markland Street in Hamilton and is president of the Durand Neighbourhood Association which covers an area in the lower city west of St. Joseph's Hospital. He explained that his Association is interested in keeping the area viable for residential purposes and expressed the opinion that due to redevelopment that the area will continue to attract families. He also explained that he was a member of the Citizens Advisory Committee in connection with the light rail transit proposal for Hamilton and stated the opinion that he felt that this group's "biggest strength was in the public participation".

Before counsel for the Limeridge Property Owners Interest Group Inc. called his first witness on behalf of this group, counsel for the proponent made an application that it would be inappropriate for the Board to hear his evidence due to his concern that the evidence, based on his reading of the witness' statement in Exhibit 407A, indicated that his evidence would be in the nature of a request to rezone the subject properties which is a matter not before this Board. This matter was dealt with by an Ontario Municipal Board hearing which approved the rezoning but which approval was subsequently overturned by the Provincial Cabinet.

During the course of the submissions made on this application, counsel for the Limeridge Group made the following statement:-

> "My respectful submission the Board has full authority to direct as a condition of approval the lands of the persons living on Limeridge and Upper James be expropriated and that has been our position and that is really the reason we are here." (Page 18,735, Volume 85 of transcript).

There then followed many submissions and much discussion as to whether this Board had the jurisdiction, if the undertaking is approved, to make such a condition.

The lands of the Limeridge Group are situate at the intersection of the proposed East-West portion of the undertaking and Upper James Street and include lands to be used for a future interchange.

During final argument by counsel for this group counsel for the proponent advised the Board that the Region will acquire the interchanges at the same time as the right-of-way for the proposed road is acquired. In any event, the Board ruled that it was prepared to hear the evidence provided that it did not deal with the question of rezoning.

Mr. Clarence Riepma is a qualified planner as well as a civil engineer. The Board does not feel it necessary to detail Mr. Riepma's evidence. The subject properties are located at the intersection of the proposed East-West road and Upper James Street with the bulk of the properties slated to be within a proposed future interchange. The lands are zoned primarily for residential purposes and with parts being zoned AA Agriculture while lands both to the north and south are used and zoned for

Commercial purposes. This proposed interchange is designated as such in the Region's Official Plan. Mr. Riepma stated his opinion that given the fact this section of the proposed undertaking would not likely be constructed until some time in the mid-1990's with the interchange to be constructed later, that it would create uncomfortable living conditions in the meantime. In this regard it was his opinion that the subject lands should be acquired by the municipality.

Some days later counsel for the Limeridge Road Property Owners Interest Group Inc. called seven witnesses who either own or did own property within the proposed interchange. These seven witnesses were Ronald MacLeod, Cornelius Groenewegen, J.A. Souter, Ronald DeGeer, Wayne Daines, Dorothy Rizzi, and Nancy Cizek.

The Board does not feel it necessary for purposes of this decision to summarize their evidence other than to state that it outlined their problems in attempts to rezone their properties and the difficulties they have experienced in attempts to sell their holdings and in some cases having sold, receiving less than they felt their lands were worth.

The chief concern of those who have not disposed of their holdings was not to be left in a position of uncertainty and that their properties be acquired by the municipality if the road is to be approved so that they will not have to continue living in an area that they consider to be no longer suitable for residential purposes.

Reply evidence was given by Dale Turvey, followed by extensive cross-examination. This evidence can best be described as a general review of evidence already heard by the Board, and added nothing new to the proceedings.

Argument

Mr. Sexton

On behalf of the Regional Municipality, the Board heard argument from both Mr. Sexton and Mr. Lederer over a period of four hearing days, including reply argument. Mr. Sexton's argument was in the nature of an executive summary, while Mr. Lederer reviewed the complex details of the lengthy evidence heard by the Board.

In presenting an overall view of the Region's case, Mr. Sexton simplified his submission into three major points:-

(1) The Region has provided a logical reason or basis for the construction proposed.

(2) A complete and comprehensive evaluation process has been conducted.

(3) The impacts of the proposed road on all aspects of the environment are acceptable, having regard to the magnitude of the undertaking.

Mr. Sexton said that a reasonable basis is sometimes called "need", but the word "need" is not found in the Environmental Assessment Act, which, in Section 5(3)(b)(i), (ii) and (iii), requires: "a statement of the rationale for the undertaking".

Mr. Sexton said that "rationale" means "statement of reasons", or "fundamental reason", or "logical basis", and therefore that is the first major point of his argument. He said there are really four fundamental reasons for this road and those are:

(a) Good planning in the community calls for construction of the road because of the physical constraints imposed on the topography of the Hamilton area, such as the lake and the escarpment. The proposed new road will unify the upper and lower portions of the City and provide better traffic circulation and access.

(b) The proposed road will provide an impetus to economic development for Ontario's second largest industrial centre. Past studies, and the implementation of those study recommendations, have shown that a need exists for such a road to improve development prospects for various industrial and commercial areas by providing better access to those developing areas.

(c) Reasonable projections of traffic demand, using computer modelling approved by the Ministry of Transportation and Communications and assuming moderate growth in population, show that this road will be needed sometime before the year 2001.

(d) The City has now utilized its present road system to the fullest extent possible, and the proposed road will be needed to relieve traffic operational problems which will arise without more improvements to the road system.

Mr. Sexton argued that those four reasons are an adequate statement of rationale for the proposed new road.

With respect to his second major point, Mr. Sexton said the evidence showed that the Region has carried out a comprehensive evaluation process before selecting the proposal now before this Board. That process involved consideration of: no-action, a minor alternative, and fifteen major alternatives, over a lengthy study period, and included the co-ordinated review by Council and its Committees and consultants, as well as public involvement.

The third major point in his argument concerned the question of impacts. He said that any road construction would create certain adverse impacts on the environment, but the overall benefit to the community should overrule localized concerns. The study and preliminary design of this proposed road has considered all possible environmental concerns and the undertaking includes mitigation measures to overcome those concerns. In addition, there has been a continuing effort throughout the study to involve the public and seek their advice. The final decision to proceed with this undertaking was made by Regional Council after full consideration of all known environmental matters.

Mr. Sexton argued that the evidence in opposition to this undertaking was not sufficient to persuade the Board to reject the Region's application.

Mr. Lederer

At the outset of his argument, Mr. Lederer said that it was his intention to review in detail the various points outlined by Mr. Sexton in his overview of the Region's case, the three basic areas being: (1) rationale, (2) evaluation, and (3) impacts. He said that, because of the very large volume of evidence placed before the Board, it would not be practical or possible for him to undertake a total review of all of that evidence, but it should not be implied that he wished to reject any of the evidence in support of the Region's application. The Board agrees with that submission, and has already so stated at an early point in this decision. In similar manner, the Board would comment at this point that Counsel has, of necessity, submitted very lengthy argument. The Board has considered all of that argument but has attempted to condense its summary of that argument in this decision.

With respect to "the rationale for this undertaking", Mr. Lederer's argument covered four distinct areas, those being: (a) planning, (b) economic development, (c) demand, and (d) traffic operational problems.

Turning first to planning, Mr. Lederer referred to the evidence given by Mr. Gartner, Mr. Schweinbenz, and Mr. Pearson. That evidence shows that there are unusual physical constraints which must be overcome to allow for orderly development to the Region's appropriate potential. The major constraint, of course, is the escarpment. Some others are the lake and ancillary water areas, the narrow beach strip, and the by-passing of Hamilton by Highway 401. These constraints have, in the past, combined to determine Hamilton's early development in a linear fashion on the lower level of the City. Historically, early development related to the growth of a shipping port and the coming of the railway, and later the Queen Elizabeth Way. The breaching of the escarpment opened up the upper level of the City for development. It is his submission that the evidence shows that past transportation accomplishments directly relate to following development. The continued improvement of escarpment crossings, by the implementation of the undertaking proposed in this application, will form the next element in the continuation of the historical relationship between transportation and development and will further serve to unite the total community. This new road will create an environment for development according to the basic planning now in place and is, therefore, justifiable as both a development road and a demand road. He referred here to the approved Official Plan and the servicing infrastructure already in place.

With respect to economic development, Mr. Lederer said the proposed road will provide an impetus to the economy of the Region. He made lengthy references to the evidence of Mr. Farrow, Mr. Cole, Mr. William Thomson, and Mr. Gartner, as well as to the approved Official Plan. Notwithstanding Hamilton's central geographic location in the "Golden Horseshoe" of Ontario, the City has a complex external road system and an external railway system, but the harbour authorities have ambitious future plans. The Region has a diversified industrial base now, with an available labour supply and good training opportunities, but, as experienced by other municipalities, improved highway access is a principal concern for future development. Employment growth is lagging and there has been a decline in industrial construction and land absorption, although the City has implemented numerous development strategies which were recommended by past studies of economic development. Mr. Lederer said that even the evidence of Mr. Robinson supports the need for more economic development. Mr. Lederer said the lagging economy must be considered as part of the rationale for this undertaking. This undertaking has always been part of the Region's strategy for development as demonstrated in the stated policies of the approved Official Plan. The road will enhance and complement existing and proposed industrial, commercial and residential developments. Mr. Lederer referred the Board to numerous exhibits submitted by witnesses in support of their evidence.

The third area of Mr. Lederer's argument with respect to rationale concerned "demand" expressed in terms of traffic demand, as established by evidence of Mr. Gartner, Mr. Barr, Mr. Main and Mr. McLean. He said there are growth indicators that the demand for increased escarpment crossing capacity will develop, and he directed the Board to Mr. Gartner's evidence supported by Exhibits 84, 28, 29, 30, 34, 35(a)(b)(c), 58, 24 and 25, as well as Mr. Main's evidence supported by Exhibit 142 and others. An expensive data collection and modelling program has been undertaken which shows there will be a demand for increased escarpment crossings. With respect to the capacity of existing escarpment crossings, Mr. Lederer said that Mr. McLean is a widely recognized expert in this field and his evidence is uncontradicted. Exhibit 110 shows the capacities which he has determined, in total 16,200 vehicles per hour for the peak hour present escarpment crossing operational capacity. Dr. Soberman did not do any work to disprove that determination and in fact he thought Mr. McLean was conservative in his calculations.

In his argument, Mr. Lederer gave a lengthy review of the modelling process used by Mr. Barr to determine traffic demand. He referred the Board extensively to Mr. Barr's evidence with respect to the various elements of input to the model and the relationships between those elements. He said that the revised population of 445,000 for the year 2001 had been determined by the Cohort Survival Method and was used in the model, and that procedure had been accepted by the evidence of Mr. Robinson as reasonable for planning purposes and should be accepted as competent projections. Mr. Robinson and Dr. Soberman had suggested that the future population projections should be re-allocated to assign more of the population to Burlington and so reduce the demand for more escarpment crossings in Hamilton, but such a proposal would not be consistent with the policies of the Official Plan or the existing scale of development and infrastructure already in place in the mountain area of the City. He said there is no evidence to support such a proposal. He also rejected Mr. Robinson's evidence to suggest that different data should be used to determine number of households, because he said Mr. Robinson is not as well equipped with local knowledge as Mr. Barr, and therefore Mr. Barr's data is more reliable. In the same manner and for the same reasons, it is Mr. Lederer's submission that Mr. Barr's evidence is proper with respect to the labour force, and Mr. Barr has tested his model by varying unemployment rates to study their effect on travel demand.

The model used by Mr. Barr is one that has been widely used in the past and is still used by the Ministry of Transportation and Communications. He said Mr. Barr's use of the model was proper and his assumptions were sound. He rejected Dr. Soberman's suggestion that the model was not appropriate and said that Dr. Soberman had not produced any alternative evidence to support his suggestion. He also rejected Mr. Robinson's criticism of the model, and said that the model used by Mr. Barr had been fully tested and validated to produce the projections used here for traffic demand. It is Mr. Lederer's submission that the most reasonable and appropriate use of the model for the year 2001 at a population of 445,000 clearly shows a deficiency of 3,000 vehicles in the peak hour and that demand justifies the need for the proposed road.

With respect to "traffic operational problems" Mr. Lederer referred to the evidence of Mr. Main wherein he described the various street improvements which have been put in place in recent years but are still not sufficient to relieve those problems associated with the movement of traffic, in particular truck traffic. As well as minor intersection improvements and a major one-way street system, some 35 major road construction projects have been completed over the past 20 years, as shown in Exhibits 81 and 82. Those various improvements are simply not adequate to handle the existing and future traffic operational problems, and there is no scope for further major improvement in the existing street system.

It is Mr. Lederer's submission that those four areas, which he has reviewed, fully support the rationale for this undertaking.

With respect to the second major point of the Region's submission, that being the "evaluation process", Mr. Lederer presented argument in two parts, (a) the process itself, and (b) ancillary evaluation issues. He referred the Board to the evidence of the witness panel comprised of Mr. Turvey, Dr. Coleman, Mr. Schweinbenz and Mr. Lehman, as supported by Exhibit 58 and Exhibits 176 to 223, both inclusive. The basic work of the project was done by the Study Team whose work was supervised and scrutinized by a Working Committee. The Working Committee in turn reported to a Steering Committee whose elected representatives made the final choice on all matters to be presented to Regional Council.

At the outset, certain strategies were defined, and from those strategies there evolved three planning alternatives: (1) no action, (2) the minor alternative, and (3) the major alternative. As described in the evidence, the "no action" and the "minor alternative" were rejected after consideration by the Working Committee, and the "major alternative", consisting of fifteen various combinations of freeway and/or arterial roads, was selected for detailed study and evaluation. From late 1977, the study proceeded through the four phases described in evidence, culminating in the selection of the proposed road now under consideration. The study process included various sessions of public involvement before the undertaking was finally approved by Regional Council.

As detailed in Mr. Turvey's lengthy evidence, and as described in Exhibit 58, the process established numerous criteria and by detailed study and consideration the fifteen major alternatives were finally reduced to the one now under consideration. The reduction of alternatives was a progressive process, all stages of which were approved by the two Committees. Exhibit 177 shows graphically the Work Program followed by the Study Team.

Mr. Lederer's argument, relating to what he called "ancillary evaluation issues", included six matters. The first of those matters was the public information program, which was extensively described in evidence by Mr. Turvey. He referred to Dr. Priddle's evidence wherein Dr. Priddle had called the program one of manipulation. Mr. Lederer said there was no evidence to support that statement by Dr. Priddle. He said the evidence shows that the public had been extensively informed and involved in this process, but the final decisions were made by Regional Council.

The second ancillary issue was that there had been some suggestions of four other alternatives raised by witnesses giving evidence to oppose this application. Those alternatives were: the already stated minor alternative, the perimeter road, the Dorney alternative using Woodward Avenue, and Highway 20 as an expressway. Mr. Lederer said that the evidence of Mr. Turvey and Mr. Schweinbenz clearly shows that none of those four could be considered an acceptable alternative.

The third ancillary issue relates to environmental representation on the Working Committee. He said that such bodies as the Hamilton Region Conservation Authority and the Niagara Escarpment Commission were represented on the Working Committee, and any environmental concerns raised by them were responded to by the consultants. The minutes of the Working Committee show that that is so.

The fourth ancillary issue relates to representation by the Ministry of Transportation and Communications. He argued that the Environmental Assessment Act required that the Working Committee study all available alternatives, and Mr. Dutchak's evidence shows that the Ministry did not attempt to influence the selection of the Valley as the best route for the road. He argued that that view is supported by the evidence given on behalf of the Town of Stoney Creek and the Niagara Escarpment Commission, and there is no evidence to show otherwise.

The fifth ancillary issue relates to the criteria used in the evaluation process. He argued that the evidence is clear to show that there was no change in the criteria used in the final stages of the process.

The final issue relates to the use of a balance sheet approach rather than a weighting system. Mr. McKibbon agreed with the Committee's use of a balance sheet approach and said that it was a proper methodology to use for this evaluation.

The third major point of the Region's submission is concerned with "impacts". In his argument, Mr. Lederer reviewed four areas of impact: (a) natural environment, (b) social environment, (c) the McLeod group, and (d) the Ontario Municipal Board Act.

He said that the impact on the natural environment, in this application, is wholly centred on the Red Hill Creek Valley and it is necessary to consider the present condition of the Valley. The Valley may be urban open space but it is certainly not in a pristine state. The Valley has already been severely impacted by man, and examples of that are: pollution in the Creek, the petroleum pipe line, various roads, the hydro electric transmission lines, use by all-terrain vehicles, railroads, the Brampton Street Landfill, the Windermere Basin, sewer outfalls, and storm sewer outfalls. He directed the Board's attention to the exhaustive study and inventory of sensitive features carried by Dr. Coleman for this application, as well as his work previously done for the Conservation Authority as input to the Official Plan process. Mr. McKibbon, the planner for the Niagara Escarpment Commission, agrees that Dr. Coleman's work followed a sound process and was completely adequate as documented in the various exhibits. As well as an inventory, Dr. Coleman has completed a detailed impact assessment of all sensitive features and scenic resources and recreation resources. He found that any adverse impacts which might arise from the construction of the road could be adequately mitigated. In his words, at page 7,972 of the record, "we arrived at the conclusion that the impact was moderate in nature, that is that certain features will be unavoidably eliminated or affected but that the substantial nature of the Valley will still be retained." Dr. Coleman's conclusions were used by the consultants in the preliminary planning for the road location so as to minimize disturbance of the scenic features of the Valley and the escarpment. With respect to recreational uses of the Valley, again this has been fully investigated by Dr. Coleman, and notwithstanding Dr. Priddle's evidence he did not carry out any studies or investigations to show that Dr. Coleman's findings were anything but proper. Mr. Lederer argued that the evidence shows that passive and active recreation can co-exist in the Valley, and would both be enhanced by the implementation of Dr. Coleman's proposed master plan for recreation. Mr. Thompson, with the use of two computer models, studied the impact of possible increased flooding to be caused by construction of the road in the Valley. He concluded that the construction will benefit the Valley because waterways will be enlarged through the railroad embankments, stream improvements will assist flow capacities, and storage will be improved. Mr. Lederer referred to six additional environmental concerns which were raised in evidence. Those are: the Upper Ottawa Street Landfill, the Brampton Street Landfill, Van Wagner's Marsh and Red Hill Creek Marsh, the Windermere Basin, Trans-Northern pipeline, and climatic conditions. It is his submission that those six concerns are non-issues in this application because there will be no adverse impact between those concerns and the proposed road.

With respect to the social environment, Mr. Lederer referred the Board to Dr. Barton's evidence with respect to air quality and possible pollution, and Dr. Lightstone's evidence with respect to noise. Both matters have been exhaustively studied and reported in evidence and there has been no research done to contradict the findings of Dr. Barton and Dr. Lightstone.

Property owners in the general area of Upper James Street and Limeridge Road, sometimes referred to as the McLeod group, are only concerned with the issue of future expropriation and possible interim land use. There is therefore no impact issue involved. Mr. Lederer said that by a previous decision of the Ontario Cabinet, with respect to an application heard by the Ontario Municipal Board, the land use issue has been settled. He said approval of the road would lead to expropriation of their properties.

With respect to the Ontario Municipal Board Act, Mr. Lederer said approval is required for the undertaking which is beyond the life term of the Regional Council. The evidence of Mr. Lawson and Mr. Wolfman as to the financial ability of the Region and the proposed financing of this undertaking did not show any adverse impact in the area of municipal taxation. He therefore seeks the approval of this Board under Section 64 of the Ontario Municipal Board Act.

Mr. Lederer asked the Board to note the desire of the Region with respect to the proposed Recreation Master Plan, although he recognizes that the Board has no jurisdiction to impose such a plan as a condition of approval for this undertaking. With respect to the Ministry of Citizenship and Culture, he agrees that the Board should define conditions as described in evidence by Miss Stevenson. With respect to Section 28 of the Conservation Authorities Act, he said there is sufficient evidence for the Board to make its decision without further recourse to the Conservation Authority.

G. Yates

Mr. George Yates, counsel for the City of Stoney Creek, in his argument on behalf of that municipality which put forth evidence in support of the proposal stated that the planning strategy of Stoney Creek was based on the transportation corridors as proposed by the Region. It was his submission that the transportation corridor should come first and "you don't develop and then start thinking about transportation corridors".

He further submitted that these transportation corridors have been discussed, proposed and considered over the past 30 years in Hamilton and that "the time is now to make a decision and confirm and accommodate what has always been known to people in this Region, that the thrust of development has been from the lower city, what we call the lower city, to the Mountain area".

Mr. Yates completed his argument by stating that the undertaking should be approved to "help promote the Region to do what is intended".

S. Stepinac

Mr. S. Stepinac argued on behalf of the Ministry of Citizenship and Culture. His argument on behalf of this Ministry was simply that conditions 1 to 10, as included in Exhibit 394, be imposed as conditions of any approval to this undertaking. (These 10 conditions are listed elsewhere in this decision).

Mr. S. Stepinac also acted as counsel for the Niagara Escarpment Commission and argued on their behalf. He pointed out that the Commission "simply would have preferred that the expressway not be located in the Valley." He pointed out that the Commission appeared at this hearing concerned with its statutory mandate to try to preserve and maintain a natural environment on lands of the Niagara Escarpment and its vicinity. As mentioned above, Mr. Stepinac stated that although the Commission would prefer that the expressway not be located in the Valley and that if it is approved the following conditions should be attached to any such approval:-

1) That some form of agreement or commitment be reached on parks development in accordance with the Recreation Master Plan (Exhibit 277) to ensure that those public lands in the Red Hill Creek Valley which are unaffected by the transportation facility are made available for future recreation use.

2) That results from storm water run-off and erosion studies be incorporated into the design of the Park Master Plan roadbed as required.

3) That a detailed grading plan be submitted for Niagara Escarpment Commission approval to minimize the effects of construction on escarpment and Valley slopes.

4) That a detailed tree preservation and planting plan be submitted for Niagara Escarpment Commission approval to protect existing vegetation and to provide for a visual screen of the route.

5) That a limit of work fence be erected 10 feet from the top of any slope and adjacent to any forested areas to prevent any unnecessary damage outside the construction area.

In regard to condition 1 above, Mr. Stepinac filed Exhibit 594, being a copy of Section 155 of the Regional Municipality of Hamilton-Wentworth Act. It was his submission that this section gives the Region some authority to deal with the first requested condition.

B. Morison

Mr. B. Morison, counsel for the Hamilton Trucking Council, presented argument on its behalf. His argument basically centered around the evidence of Mr. Jennings that "the Hamilton Trucking Council has suffered material injury from the failure of the City of Hamilton and the Region to provide an efficacious truck transfer station system to serve the commercial and industrial sections of the City and the Region of Hamilton-Wentworth". He submitted that the evidence of Mr. Jennings was that "a great deal of economic activity has been lost in Hamilton because of the flight of business to areas served by freeways". It was his submission that the welfare of the Region is the major issue and therefore the undertaking should be approved.

In completing his argument Mr. Morison requested that costs in the amount of $4,500 be awarded the Hamilton Trucking Council.

The question of costs is dealt with later in this decision.

H. Turkstra

On behalf of The Save the Valley Committee Inc., the Hamilton Region Conservation Authority and the Limeridge Road Property Owners Interest Group Inc., the Board heard argument over a period of five hearing days from Mr. Turkstra.

Mr. Turkstra commenced his argument by references to the Environmental Assessment Act. It was his submission that the Board "has full and ample authority to impose any conditions on the Region that reasonably arise out of the evidence".

He then went on to submit what he considered to be the five principal issues. Those are summarized as follows:-

1) Is the Environmental Assessment submission and the evidence tendered by the Region a reasonable and reliable basis on which to make a decision?
2) Has the Region demonstrated in accordance with the Environmental Assessment Act, that there will be a benefit from and that there is a need for the proposed expressway and arterial roads?
3) Even if the need for additional transportation facilities has been proven, should a road be built in the Red Hill Creek Valley?

4) If the Region succeeds on the first three issues, what protection should be ordered as conditions or terms of approval?
5) What order should be made for costs?

In respect of issues 1, 2 and 3 above, Mr. Turkstra submitted that the answer to each should be "no".

Issue 5 is dealt with later in this decision.

In regard to issue 4, Mr. Turkstra chose to set out his suggested conditions, if approved, before embarking on his arguments as to why the undertaking should not be approved. These conditions are as follows:-

1) That since the Master Recreation Plan (Exhibit 277) has not been properly developed and assessed in the normal way, in his opinion, that a period of twelve months be given during which time the decision should be reserved for an agreement to be reached to define how, where, and under what circumstances and what staging the passive areas of the Valley are to be protected, preserved and used.
2) That a proper pedestrian right-of-way be provided across the expressway at Melvin Avenue.
3) That unmitigated sound contours should be established by a qualified expert, and sound contours plotted and the levels of mitigation established. That a commitment be given by the Region to compensate those homeowners where sound standards are not met.
4) That profiles must follow what has been presented in evidence.
5) That plantings be enforced.
6) That erosion control be specified.

7) That representations made about the way in which construction will be monitored should be an essential part of the Board's order.

8) That the interchanges on the east-west portion be clarified to make it clear that lands within the interchanges are to be freed of their interchange designation.

9) That there be an agreement with property owners in the right-of-way who wish to sell or to have their compensation referred to the Ontario Municipal Board.

At the conclusion of this point in Mr. Turkstra's argument he told the Board that he had been advised by Mr. Lederer that the Region will acquire the interchange lands at the same time as it acquires the right-of-way lands in the relevant area and as a result, "it gets rid of one of my conditions".

As stated in that part of this decision dealing with Mr. Lederer's argument that the Board has considered all of that argument, the same applies to Mr. Turkstra's argument and the Board has also attempted to condense Mr. Turkstra's argument in this decision.

Mr. Turkstra filed with the Board a large group of bound documents and letters, some of which were exhibits before the Board and some of which were not. Many of his submissions relating to this were attempts to convince the Board that the Region entered into the Environmental Assessment of the undertaking with the selected alternative being foremost in their minds and as a result the Environmental Assessment was directed with that as a given fact and also that the Ministry of Transportation and Communications was instrumental in placing the proposed road through the Red Hill Creek Valley.

He also argued that when the Region learned that the population projection of 550,000 was too high that at this point not only should the Environmental Assessment have started over, the Region should have also reviewed the Official Plan with particular reference to the "roadway" since it was his submission that the Official Plan was based on a population of 550,000.

In completing his argument relating to the aforementioned group of documents Mr. Turkstra summed up as follows:-

1) A significant part of the history of this project was not given by the Region's witnesses.
2) The economy, as an issue, arose in 1984 in preparation for financing and for this hearing.
3) The process was impacted in a major way by people who had made up their minds before the Environmental Assessment began.
4) The Ministry of Transportation and Communications, from the 1960's until about 1982, played more than a neutral role.
5) Inclusion of the Valley had widespread public and political opposition and there is no overwhelming community concensus for its inclusion.
6) The public were not given vital information in a timely way.
7) The normal Official Plan process was subverted.

After that Mr. Turkstra made submissions regarding the evidence of some of the Region's witnesses. In referring to Mr. Gartner's evidence it was his submission that what the undertaking does is redistribute the growth as opposed to changing the population of 445,000 and that the allocations of population all assumed the construction of the road and that the results were used to show that the road should be built. He also submitted that there is a significant volume of land above and below the Mountain for residential purposes which leaves all kinds of room for options as to how to distribute the population.

In regard to Mr. Spencer's evidence he submitted that the available services also allow for different allocations of the population projections.

In his submissions concerning Mr. Farrow's evidence, Mr. Turkstra submitted that Mr. Farrow did not analyze the possibility that the steel industry may grow or decline. He also submitted that Mr. Farrow did not look at alternatives, particularly by not assessing the impact of different ways of solving the traffic problem. He referred to several other omissions that he submitted Mr. Farrow made which the Board does not feel necessary to detail but suffice it to say that he concluded by stating that Mr. Farrow did a "selling job on the expressway" and that "Farrow's evidence is so shot full of holes that the Board should not pay any attention to it".

In referring to Mr. Pearson's evidence, Mr. Turkstra submitted that there was "no substance to his evidence at all".

Regarding Mr. McLean's evidence, Mr. Turkstra submitted that Mr. McLean was brought in to look at the very narrow issue of traffic problems and road capacities.

In dealing with these three witnesses, Mr. Farrow, Mr. Pearson and Mr. McLean, Mr. Turkstra referred to them as "drop-in artists" whose reports and evidence should not be a part of the Environmental Assessment. He further submitted that had there been a genuine need for the road there would have been no need to bring in these three witnesses.

Mr. Turkstra spent some time in dealing with Dr. Coleman's evidence but his submissions can be summed up by stating that Mr. Turkstra argued that "the Valley becomes acceptable by mitigation efforts" and in his "respectful submission that Dr. Coleman is still ambivalent about the end result of all this close-knit analysis of mitigation aspects".

Regarding Mr. Main's evidence, Mr. Turkstra summed it up by stating, "I think Mr. Main's evidence can be interpreted as much as a plea for the perimeter road as it is a plea for a road up the Red Hill Creek Valley."

Concerning his submissions on Mr. Turvey's evidence (the principal author of the Environmental Assessment submission), Mr. Turkstra mainly related his comments to the Environmental Assessment submission. These comments can be summed up as follows:-

1) A major defect in the Environmental Assessment study was the failure to conduct a total system analysis based on the demographic reality which became apparent in 1979 and confirmed in the 1981 census.

2) Issues of impact are left, not to be assessed by the joint board, but in the future by informal consultations free of public input or hearings.

3) The investigation did not deal realistically with the entire transportation system.

4) The introduction of the concept of "desired growth" produced an analysis not based on fact but on "dream planning".

5) The undertaking is principally a City of Hamilton issue.

6) Principal organizations interested in social values and the environment were not consulted. The evidence at this hearing makes it clear that the only interest groups consulted were those in support.

7) The evaluation process was primarily focused on the issue of travel demand, not stimulus of the economy.

8) There are no current roadway deficiencies.

9) Minds were made up before the investigation started and the process in its most important aspects operated in secrecy.

10) There is no documented analysis that ties staging to travel demand.

11) Production of documents by the Region shows no interim or continuous reports to planning committees or council.

12) The Regional Council and the public were not informed that the population projections were too high and the revised projections would reduce travel demand, making previously eliminated alternatives viable.

Regarding Mr. Marini's evidence concerning the City of Stoney Creek, it was Mr. Turkstra's submission, among other things, that Stoney Creek can add 23,000 people without the road.

Mr. Turkstra's portion of his argument dealing with Mr. Barr's evidence concerning traffic and the demand issue can be summed up as follows:-

1) The demand issue is related to population growth and distribution. It is unlikely that the population will reach 445,000 in the year 2001.
2) The population distributions by municipality and growth projections for the Mountain are unreliable.
3) The projected employment distribution is unreliable.
4) Transit improvements were not adequately considered.
5) The modelling process has great scope for error.

Mr. Turkstra's argument on behalf of the Hamilton Region Conservation Authority essentially was the following:-

1) That the Red Hill Creek Valley with the expressway will be fundamentally different than without it. This basic difference was not adequately assessed by the Region.
2) That there is not enough information available before the Board to make a decision under Regulation 165 of The Conservation Authorities Act on the cut and fill application.
3) That the Valley and the road cannot peacefully co-exist.

Mr. Turkstra did not make any detailed argument regarding the evidence of his witnesses on behalf of The Save the Valley Committee Inc.

In referring to these witnesses (Dr. Soberman, Mr. Robinson, Dr. Priddle, Dr. Koczkur, Dr. Dorney and Dr. Webber) he stated "to have all of those witnesses come before the Board and all have such a uniform sense that the assessment was wrong and the impacts were serious, in my respectful submission, is quite remarkable".

Mr. Turkstra submitted that the substance of The Save the Valley Committee's submission is to ask the Board to protect the Red Hill Creek Valley for future generations.

As far as the McLeod Group (Limeridge Road Property Owners Interest Group Inc.) is concerned, he requested on their behalf that if the undertaking is approved that it be conditional upon the Region within 90 days of the approval either expropriating their lands or entering into an agreement to purchase their lands forthwith at a price to be fixed by the Ontario Municipal Board under the voluntary referral provisions of The Expropriations Act.

Mr. Turkstra further submitted that the onus is on the proponent to submit both sides of the case, the negatives as well as the positives which he argued the Region did not do in that it was his opinion that the Region only presented the positive side.

He concluded his argument by submitting that there are three decisions to be made by the Board.

1) Is the Environmental Assessment sound?

2) Is there a benefit?

3) Should the road be built in the Valley if there is a benefit?

Mr. Turkstra said the answer should be "no" to all three.

Argument in Reply by Mr. Lederer

Mr. Turkstra's argument required five hearing days for his presentation, and Mr. Lederer's argument in reply required one whole hearing day, as reported in Volume 100 of the record.

In reply, Mr. Lederer said that Mr. Turkstra had made numerous submissions which were not supported by evidence. He criticized Mr. Turkstra's choice of language in many instances and said his argument was inconsistent with the evidence. He reviewed all of Mr. Turkstra's submissions and referred the Board to numerous parts of the evidence where, he argued, the evidence did not support Mr. Turkstra's submissions.

As reported at page 21,967 of the record, Mr. Lederer said by way of a short summary statement:-

> "What you have here is a comprehensive program carried out by responsible individuals who have conscientiously brought to you the best evidence that can be supplied and that evidence is essentially untrammelled and all the protections that are required in these circumstances are present, and we respectfully ask that the road be approved."

Decision

The Board has carefully considered all of the evidence and the argument submitted in this lengthy proceeding. The first conclusion which the Board has reached is that there is really one dominant issue throughout this whole proceeding, and that issue is: "Should the Regional Municipality of Hamilton-Wentworth be given the necessary statutory approvals to construct a road in the Red Hill Creek Valley?" It is the opinion of this Board that that approval should be given.

At the outset of the public hearing, Mr. Tidball appeared as counsel for the Ministry of the Environment and asked to be recorded as a party to the proceedings. During the course of the hearing, either Mr. Tidball or Miss Koskie were in attendance at various times, but they did not, at any time, participate in the proceedings.

In an early submission to the Board, counsel for the Regional Municipality of Hamilton-Wentworth stated that this application before the Board should be considered an "all or nothing application". He said that the Board should either approve or not approve the total application by the Region for the whole of the project as submitted, and that the Board should not attempt in its decision to give partial approval or to modify or change the proposed undertaking in any way.

The Regional Municipality has presented a formidable case in which it has shown by overwhelming, in most cases uncondtradicted, evidence that the proposed road can be constructed in such a manner that the physical qualities and the environment of the Valley can be greatly enhanced to the benefit of the citizens of Hamilton and those features can peacefully co-exist, both in the public interest.

On many occassions, both in evidence and argument, it was suggested that the construction of this undertaking would "destroy the Valley". The Board cannot find, anywhere in the record, any evidence by any witness, other than very general statements, to show that the construction of the proposed road will "destroy the Valley". Such a view was often expressed by various persons, both represented by counsel and not represented by counsel The Board wishes to state that it has great respect for ratepayers' views and has given strong consideration to their views, but the Board cannot accept, in the absence of firm evidence, that the proposed road will "destroy the Valley."

The cost estimate for this undertaking does not include funds for the completion of the Recreation Master Plan as prepared by Dr. Coleman. However, Mr. Schweinbenz said in evidence that the Regional Council, while not giving formal approval to that plan, had expressed a positive attitude toward such a plan and an opportunity exists to include such a plan as part of the total undertaking.

The Recreation Master Plan, entered as Exhibit 277, was prepared by Dr. Coleman under specific authorization by Regional Council. The Board heard evidence from a number of witnesses with respect to the Plan, and the Niagara Escarpment Commission expressed support for such a plan. The Regional Municipality of Hamilton-Wentworth does not have any administrative structure related to parks and recreation as a municipal service. The City of Hamilton, which owns the Valley, took no part in the proceedings before this Board and there was no formal communication from the City to indicate any consideration of the Recreation Master Plan by the City. No provision was made in the cost estimate of the undertaking before the Board to implement such a Plan. There is provision in the undertaking to provide for necessary changes and relocation of existing recreation facilities in the Valley. There is no formal application before this Board with respect to any aspect of the Recreation Master Plan as prepared by Dr. Coleman. Therefore this Board has no jurisdiction to order that the Plan be implemented, although this Board believes that such a plan would be of great benefit to the citizens of Hamilton-Wentworth and would greatly improve the recreational use and the physical attributes of the Valley. The implementation of such a plan and the future administration of the area would require the co-operation and decisions of the Regional Municipality of Hamilton-Wentworth, the City of Hamilton, and the Hamilton Region Conservation Authority. This Board will only say that if such decisions were taken to implement this or a similar plan for recreational uses of the Valley, and if such decisions required the statutory approval of this Board, then such approval would be given by this Board.

This decision has already reviewed the great volume of evidence submitted before the public hearing, but it is proper at this point in the decision to review briefly certain highlights of that evidence.

This undertaking, the construction of a major road 20 kilometres in length through one of Canada's largest urban areas, is an undertaking of major proportions requiring the expenditure of large sums of public funds. The nature of the undertaking is such that extensive lead time is required to allow for the proper planning, design and construction, and the evidence shows clearly that a demonstrated need, in terms of traffic demand, will be evident by the time the construction is completed.

This demonstrated need is not to be confused with any perceived saving in time required for individual trips between various areas of the City because travel times can be influenced by many factors.

This undertaking is a major part of the stated policy of the Official Plan, which is the long range planning policy which has been adopted by the Regional Council and approved by the Province of Ontario. The Official Plan itself was only approved after a lengthy planning process as required by the Planning Act.

The history of planning and development in the Hamilton area, taken together with the stated policies of the Regional Council and supported by the evidence adduced, clearly shows that the proposed road will enhance opportunities for future economic development which is needed to improve the lagging economy of the Region and to ensure the maintenance of the Region's existing industrial and commercial economy for the benefit of its present and future citizens.

The evidence shows that the Regional Municipality is well managed financially and with the financial assistance of the Province of Ontario this undertaking will not impose any undue financial burden on the Region's ratepayers.

The evidence clearly shows that the Red Hill Creek Valley is presently in a state of pollution and already severely impacted by man-made installations. Other than major active recreation facilities such as a golf course, arena, and ball parks, the Valley is not now extensively used for passive recreation. The construction of the proposed road will clean up the major points of pollution and will provide improved public access to the Valley. The opportunity exists to create a major recreational area, both passive and active, in a manner similar to other such areas already in place under the current control of the Conservation Authority acting as the responsible jurisdiction. The evidence clearly shows that any adverse impacts to the environment which might be created by the road, such as noise or air pollution, will be mitigated to bring those impacts within the stated criteria established by various agencies of the provincial government.

The City has exhausted its resources in terms of improving traffic operations on its street system and this road will provide needed future traffic operation improvements. On a somewhat minor scale at the present time, the road will provide a further link in the provincial highway system and fulfill a ring road function around the City. The proposed road will assist the City of Stoney Creek in maintaining its basic planning objectives, and will further development objectives in the Mountain Area for both the City of Stoney Creek and the Ontario Land Corporation. There will be no adverse impact on the Niagara Escarpment.

The evidence adduced on behalf of the Niagara Escarpment Commission did not show strong opposition to this undertaking, if their concerns could be met. The Region has shown that it can satisfy those concerns by the Commission without creating an additional opening through the escarpment.

This application is strongly supported by the Hamilton Trucking Council in evidence given by Harold Jenings who has been involved in the truck transport business for 49 years. It has been his experience that expressways in other cities such as Kitchener and Buffalo will attract industrial development, and he said freeways are necessary to efficient truck movements. His counsel argued that the trucking industry in Hamilton has been severely impacted adversely by the failure of the Region to provide an adequate truck transportation system.

The Upper Ottawa Street landfill is a separate issue from this proposed road and is already the subject of planning for future improvement by the appropriate authorities. The Brampton Street landfill is not an issue to the Regional Municipality's portion of this undertaking. It may, or may not, be affected by work to be done by the Ministry of Transportation and Communications to connect the proposed road to the Queen Elizabeth Way.

This application by the Regional Municipality is supported by the evidence of a number of individual ratepayers and public bodies, but the application is also strongly opposed by other ratepayers. The major objection to this application was brought by The Save The Valley Committee, Inc. and the Hamilton Region Conservation Authority, both represented by legal counsel.

The Limeridge Road Property Owners, sometimes referred to as the McLeod Group, is comprised of a number of property owners in the general area of Upper James Street and Limeridge Road, and they did not demonstrate opposition to this undertaking. Although the City, and subsequently the Region, have for some years carried on the process of acquiring a new road right-of-way across the Mountain area from east to west, and land use planning has been co-ordinated to that new right-of-way, the McLeod Group has generally owned their properties for some time prior to the planning for that new right-of-way. When the planning for the proposed road indicated that their properties would eventually (at that time many years in the future) be required for the proposed road, they tried unsuccessfully to have their properties purchased by the Region. Failing such purchase, they brought an application before the Ontario Municipal Board by which they sought commercial land use zoning as an interim measure until their properties might eventually be expropriated. That application was rejected by order of the Ontario Cabinet. They now seek some assurance that their properties will be expropriated at an early date and at reasonable consideration. This Board has no jurisdiction to make such an order. The Region did submit in evidence and argument that, if this application were approved, then the Region would proceed to expropriate these properties, but there is no assurance that that will in fact be done at an early date.

The Hamilton Region Conservation Authority was represented on the Working Committee by Mr. Vanderbrug, the General Manager of the Authority. He said in evidence that he approached his work on the Committee with the view that the proposed road should not be built in the Valley and he eventually withdrew from the Working Committee. His views on the conservation and future use of the Valley were supported by a number of officers and directors of the Conservation Authority. This Board believes that the Conservation Authority has adopted a very strong opposition to the proposed road and has simply refused to move from that position. The Board believes that an opportunity exists for the Conservation Authority eventually to become the authority having jurisdiction over a major public recreational resource in the Valley at no direct cost to the Authority, and that the nature of the improved Valley would be in conformity with the flood control and conservation criteria of the Authority. The Board therefore rejects the objections raised by the Hamilton Region Conservation Authority.

The major opposition to this application really was brought by The Save The Valley Committee, Inc. On behalf of the Committee, evidence was given by six expert witnesses: Dr. Richard Soberman, Mr. Lukin Robinson, Dr. George Priddle, Dr. Robert Dorney, Dr. Michael Webber, and Dr. Eugene Koczkur. Their evidence is reviewed elsewhere in this decision, but it should be noted that Mr. Robinson was the only one of those six experts who had carried out any independent research and study with respect to this application. His major conclusion was to agree that the Region's updated population projection of 445,000 for the year 2001 was a reasonable projection to use for planning purposes. The Board recognizes that the Committee did not possess adequate financial resources to retain those expert witnesses prior to the commencement of the public hearing on October 15, 1984, and in fact their witness statements were entered as Exhibits 407, A and B, on March 6, 1985. Dr. Soberman had previously participated as a Transportation Planning Engineer in a seminar in Hamilton. Dr. Priddle, Dr. Dorney, Dr. Webber, and Dr. Koczkur had all previously been involved in various projects in the Hamilton area related to their various fields of expertise. Those expert witnesses therefore relied on those previous associations with the Hamilton area to supplement their evidence which was given generally as response and reaction to evidence and exhibits produced by the Regional Municipality. In no case did the evidence of those six expert witnesses persuade the Board to reject the evidence given by witnesses on behalf of the Regional Municipality.

In addition to those six expert witnesses, evidence was given by Michael Finochio, a real estate broker with many years of experience in Hamilton. He said the lower section of the City to the north of Main Street is now the major area for residential property sales in Hamilton with sales in early 1985 in the order of 42 per cent higher in total volume than for the comparable period one year earlier. He is also involved in commercial and industrial land sales and did not believe the Mountain industrial park to be attractive to prospective buyers at this time. It was his view that that land should be re-zoned for residential use and he could not see any positive impact from the proposed new road, which he considered to be a waste of money.

As reviewed elsewhere in this decision, the Committee also adduced evidence from a number of citizens who are members of the Committee. The Board has carefully considered that evidence, but it is the Board's view that the benefit to the community as a whole must prevail over the wishes of a small number of ratepayers in the area when considering a project of this magnitude.

Mr. Turkstra argued that the Region did not explore all possible alternatives which he submitted should include things other than roads such as using the available funds for other Municipal projects that he considered the Region should be attending to. These might include parks purchases and their development, expanded industrial promotion and other hard services.

In regard to this submission the Board takes the view, since the "Purpose of the Undertaking", as stated in Section 2.1 of Exhibit 58 is:-

> "The purpose of the undertaking is a direct response to current local transportation issues expressed by the public, adopted policy of Regional Council, and the forecast of population and employment growth within the twenty-year planning period to 2001. The underlying issues reflect current trends wherein road expansion may be rationalized as much on the environmental benefits as on purely traffic requirements."

that the alternatives are limited to various roadway routes and locations.

The Board concludes that this Region, based on the evidence adduced did explore all reasonable alternatives as required by the Environmental Assessment Act.

With respect to the Official Plan referral to this Board by the Minister on behalf of John Ellis, there was no planning evidence to support that referral. The planning evidence of the Region was uncontradicted in support of the Official Plan designation of the road through the Valley as described in the approved Official Plan.

As demonstrated by Exhibit 58, and others related, the Regional Municipality has completed an exhaustive Environmental Assessment for this undertaking, in some matters far in excess of the requirements of the Environmental Assessment Act. The extensive evidence shows clearly that all anticipated adverse impacts on the environment will be successfully mitigated.

The evidence is also clear that the process followed by the Region has allowed for extensive public involvement in planning this undertaking, and that public involvement has been seriously considered and has influenced the planning of this undertaking. The public hearing conducted by this

Board is considered to be part of the process of Environmental Assessment, and the hearing also allowed extensive submissions by the public.

It should be noted that the jurisdiction of this Board extends only to the approvals of this undertaking as required by the various statutes. Such approvals should not be taken as an order by this Board that the undertaking be constructed. That final authority rests with the Regional Council.

This undertaking by the Regional Municipality of Hamilton-Wentworth commences at the interchange of Highway 403 and Mohawk Road and terminates at Station 29 + 175 opposite Brampton Street as shown on Figure 48 contained in Exhibit 57. As shown on Figure 50 of Exhibit 57, it is then necessary to construct certain works so as to provide an interchange and connection to the Queen Elizabeth Way. As described in evidence by Mr. Dutchak, this connection will likely require modifications to the proposal shown in Figure 50 to overcome such problems as: conflict with the Brampton Street landfill, impact on the Red Hill Creek Marsh and Van Wagner's Marsh, and properly co-ordinated entrances to the Queen Elizabeth Way because of widening of the Queen Elizabeth Way associated with the twinning of the Burlington Skyway Bridge. All of this work will be done by the Ministry of Transportation and Communications and does not require the statutory approval of this Board, although it was necessary for this Board to hear that evidence as it affects the undertaking proposed by the Regional Municipality. The Ministry already has the necessary approval under the Environmental Assessment Act for its project, now in progress, to twin the Burlington Skyway Bridge and widen the Queen Elizabeth Way. With the supporting evidence of Mr. Dutchak, Dr. Coleman, and Mr. Turvey, this Board can see no reason to withhold any further approvals which may be seen to be required to permit the Ministry of Transportation and Communications to carry out the construction of works necessary to complete the interchange generally as shown on Figure 50 of Exhibit 57 with the necessary modifications described by Mr. Dutchak.

Costs

At the commencement of the public hearing, on October 15, 1984, counsel for The Save The Valley Committee, Inc. and the Limeridge Road Property Owners Interest Group Inc. presented a motion pursuant to Section 7 of the Consolidated Hearings Act, 1981 by which he sought to have the Board award costs in the amount of $75,000.00, in advance of the hearing, to these two clients. He argued that the Act allowed the Joint Board to determine its own procedure and therefore the Joint Board had jurisdiction to make such an award of costs. His argument was supported by counsel for the Hamilton Trucking Council.

Counsel for the Regional Municipality of Hamilton-Wentworth said that the word "costs" was not defined in The Consolidated Hearings Act, 1981, and therefore the Joint Board should accept the traditional meaning of costs in legal proceedings before the Courts, i.e. to follow the event. There is nothing in The Consolidated Hearings Act, 1981 to indicate otherwise. It was his submission that what is sought by the motion is really "funding" and the Board has no jurisdiction to make such an award.

In ruling on the motion, the Joint Board said, in part:

> ".... This proceeding before this Board is different than an adverserial proceeding before the Courts.

> .... It is difficult in the public hearing context to apply the principle that costs follow the event.
>
> .... We are talking about .... the ability in practical terms of the parties, ... to put forward their respective positions to the Board in a manner which will enable the Board to reach not only an informed decision but one that is balanced in terms of the public interest."

The Board concluded that it did have the jurisdiction to make an award of costs in advance of the hearing, and the Board proceeded to make such orders.

Those orders of the Joint Board were subsequently quashed by a judgment of the Divisional Court. That judgment was delivered on June 28, 1985.

The public hearing before the Joint Board concluded on June 20, 1985, and immediately prior to the conclusion of the hearing, the Board heard submissions from counsel with respect to costs.

Mr. Turkstra, acting for The Save The Valley Committee, Inc. and the Limeridge Road Property Owners Interest Group, Inc. requested a substantial award of costs. He had presented detailed invoices to show the fees payable to the expert witnesses which he retained, as well as the participation in the hearing by himself and his colleagues, Mr. Ivey, Mr. Maltz, Miss Grahek, and Miss Lindley. He said that once he had accepted the commitment to this hearing process, he could not then evade his responsibility to present a proper case. His invoices document that participation and are therefore proper.

Mr. Lederer, counsel for the Regional Municipality, opposed the payment of costs by the Region. He agreed that the Board has jurisdiction to award costs now at the conclusion of the public hearing. He said the public hearing process is essentially a matter of citizens participating in democracy and therefore it ought to be more difficult to award costs here than in a Court proceeding. He said Mr. Turkstra's invoices amounted to a solicitor and client bill and were excessive in these circumstances. He said the hearing had gone on for too long a period of time because of unnecessary lengthy cross-examination of the Region's witnesses, and he questioned the value of the evidence adduced on behalf of Mr. Turkstra's clients.

At the outset of this hearing, and at various times during the hearing, both counsel accepted that this hearing was not an adverserial process in the same manner as a Court proceeding. Mr. Lederer is correct when he says the hearing went on for too long a period of time, but that situation was not created entirely by Mr. Turkstra. It is a matter of record that the Board was required, during the hearing, to consider argument and make rulings on a large number of motions brought by both counsel. It is also a matter of record that, during the hearing, the Board cautioned both counsel at times that examination and cross-examination were repetitious and at times irrelevant. The Board did agree, at the outset of the hearing, that wide ranging cross-examination would be permitted.

As counsel for the Hamilton Region Conservation Authority, Mr. Turkstra said he had a budget of $10,000.00 at his disposal, although at times that case became interwoven with other matters. In addition, his two clients, The Save The Valley Committee, Inc. and the Limeridge Road Property

Owners Interest Group, Inc. had approximately $30,000.00 available towards the costs of the hearing. Based on submissions made on October 15, 1984, the Board ordered an award of costs in advance in the amount of $75,000.00. That order was subsequently quashed by judgment of the Divisional Court, but it demonstrates that Mr. Turkstra commenced this hearing with approximately $115,000.00 available for the conduct of his case. The hearing process actually required 100 hearing days over an eight-month time frame, and the nature of the hearing was such that both counsel, and their witnesses were required to work many hours beyond the actual hearing time. Mr. Turkstra now has submitted for this Board's consideration a further account (Exhibit 595) in the amount of approximately $250,000.00. In support of that account, he has referred the Board to the Region's costs shown in Exhibit 590.

The Board has carefully considered all of the circumstances surrounding the conduct of the hearing and believes that a proper award of costs would be in the amount of $150,000.00 payable by the Regional Municipality of Hamilton-Wentworth to The Save The Valley Committee, Inc. and the Limeridge Road Property Owners Interest Group, Inc. There will be no other award of costs to other parties or participants.

Therefore it is the decision of this Board:-

(1) That the Environmental Assessment as amended be accepted for this undertaking pursuant to Section 12 of The Environmental Assessment Act, (R.S.O. 1980, c. 140).

(2) That approval be given to proceed with the undertaking herein, pursuant to Section 12 of The Environmental Assessment Act, (R.S.O. 1980, c. 140), and subject to the terms and conditions set out in Schedule "A" attached to this decision and forming part hereof.

(3) That the application by John Ellis to amend the Official Plan for the Hamilton-Wentworth Planning Area as referred to this Board by the Honourable Minister of Municipal Affairs and Housing, pursuant to Section 17 of The Planning Act, (R.S.O. 1980, c. 379) (Minister's File No. 25-OP-0056), be dismissed.

(4) That the Niagara Escarpment Commission be directed to issue a development permit pursuant to Sections 24, 25 and 26 of The Niagara Escarpment Planning and Development Act, (R.S.O. 1980, c. 316), and subject to the terms and conditions set out in Schedule "B" attached to this decision and forming part hereof.

(5) That the Hamilton Region Conservation Authority be directed to issue a permit pursuant to Section 28(3) of The Conservation Authorities Act, (R.S.O. 1980, c. 85), and subject to the terms and conditions set out in Schedule "C" attached to this decision and forming part hereof.

(6) That approval be given to proceed with Stage 1 and Stage 2 of the undertaking herein, pursuant to Section 64 of The Ontario Municipal Board Act, (R.S.O. 1980, c. 347).

(7) That costs in the total amount of $150,000.00 be paid by the Regional Municipality of Hamilton-Wentworth jointly to The Save Valley Committee, Inc. and the Limeridge Road Property Owners Interest Group, Inc.

DATED at TORONTO this 24th day of OCTOBER, 1985.

A.B. BALL
MEMBER OF JOINT BOARD

M.D. HENDERSON
MEMBER OF JOINT BOARD

SCHEDULE "A"

Conditions - The Environmental Assessment Act

1) That upon completion of construction of the undertaking herein the Regional Municipality of Hamilton-Wentworth shall establish a system of monitoring with respect to noise, air quality and erosion so as to ensure that the designed and constructed mitigation features of the undertaking are in fact effective so as to mitigate the above matters to standards within the criteria established by the Province of Ontario. This monitoring program is to be conducted at least annually.

2) That a proper pedestrian right-of-way be provided across the expressway at Melvin Avenue.

3) The archaeological site known as the Spera site (AnGw-31) must be subject to mechanized topsoil stripping prior to Stage 2 construction. Such activity shall be supervised by a licensed archaeologist.

4) The 19th century homestead site located southwest of Nardi Court (not identified in DeLCan's 1980 report) shall be subject to the same mitigation measure as in 1, i.e. mechanized topsoil stripping supervised by a licensed archaeologist.

5) The Freeway corridor in the Town of Ancaster shall be subject to archaeological survey and investigation by the proponent, with

mitigation measures being adopted, if necessary, by the proponent following consultation with the Regional Archaeologist of the Ministry of Citizenship and Culture.

6) The late 19th century farmhouse located on Garth Street and identified by the proponent in Heritage Resources Documentation, July 1982, shall be subject to further detailed recording prior to demolition, mainly in the form of black and white photographic recording of elevations.

7) With respect to the remnants of the lime kiln located adjacent to Upper James Street, the following shall be carried out prior to disturbance of the site:

(i) the preparation of measured drawings and a site plan of the existing lime kiln remnants;

(ii) the carrying out of historical and archaeological survey work to determine the extent of the lime kiln complex; to identify foundation or other physical remnants of the complex where they exist; and to determine if further archaeological mitigation measures are necessary (Staff of M.C.C. shall be consulted to ensure that work carried out is satisfactory);

(iii) the lime kiln remnants shall be relocated to a suitable site and preserved and maintained as a monument. Work shall be carried out as provided for in condition 6.

8) The hamlet of Mount Albion shall be subject to complete and comprehensive recording prior to disturbance and shall comprise the following:

(i) a comprehensive written history of the settlement from its earliest origins to the present day;

(ii) a compilation of graphic material, e.g. contemporary (black and white) and historical photographs; contemporary and historical maps of the area; which will comprise a comprehensive visual record of the settlement; its buildings and inhabitants;

(iii) any relevant oral history from past or present residents of Mount Albion;

(iv) any archaeological mitigation measure that may be deemed warranted by the results of historical investigations.

N.B. All work shall be carried out by suitably qualified persons. Staff of M.C.C. shall be consulted to ensure that work carried out is satisfactory. Material collected will be deposited with appropriate bodies or agencies.

9) In Mount Albion those buildings identified as being of architectural and/or historic interest in this environmental assessment and as a result of condition 6 shall be recorded prior to their removal. Such recording shall be agreed upon by the proponent and M.C.C. and will be informed by this Ministry's guidelines.

10) Those buildings identified in condition 7 shall be relocated subject to the feasibility of such actions, i.e. availability of suitable

sites; distance; cost; and structural condition, after consultation and agreement with M.C.C.

11) Those road bridges to be removed or made redundant should be described on recording forms provided by M.C.C. Mitigation measures, e.g. adaptive re-use; incorporation of plaques into new structures, etc. shall be agreed upon by the proponent and M.C.C.

12) The cemetery at Mount Albion is to be adversely affected through acute disruption of its surroundings. Detailed landscaping plans shall be prepared by the proponent indicating appropriate mitigation measures, e.g. vegetative plantings; berm construction. Such measures shall be agreed upon by M.C.C.

SCHEDULE "B"

Conditions - The Niagara Escarpment Planning and Development Act

1) That those public lands in the Red Hill Creek Valley which are unaffected by the undertaking herein be reserved for possible future public recreation use.

2) That results from storm water run-off and erosion studies to be completed as part of the design process for the undertaking herein be incorporated into the design of any future master plan of recreation intended to implement condition 1.

3) That a detailed grading plan be submitted for Niagara Escarpment Commission approval to minimize the effects of construction on Escarpment and Valley slopes.

4) That a detailed tree preservation and planting plan be submitted for Niagara Escarpment Commission approval to protect existing vegetation and to provide for a visual screen of the route.

5) That a limit of work fence be erected 10 feet from the top of any slope and adjacent to any forested areas to prevent any unnecessary damage outside the construction area.

SCHEDULE "C"

Conditions - The Conservation Authorities Act

That the works be constructed in accordance with the recommendations of the hydrologist Larry Thompson, as stated in evidence by him on January 16, 1985, with respect to: the size and elevation of creek channels and culverts, the type of materials to be used for lining the channels, the size and elevation of openings through the two railroad embankments, and the size and elevation of storm water storage areas.

M.I. JEFFERY, Q.C., CHAIRMAN (dissenting)

I have had the benefit of reading the reasons for decision and decision of my colleagues and, with considerable regret, find myself unable to agree with several of the conclusions reached by them and, in consequence thereof, their ultimate disposition of this application.

A detailed description of the proposed undertaking is fully set forth in the reasons for decision delivered by the majority and, accordingly, it will be unnecessary for me to restate them. Likewise, the specific matters requiring a decision of the Joint Board are also listed in sufficient detail by my colleagues so as to render redundant my repeating them and will therefore be mentioned by me only as may be necessary in the context of my reasons for decision hereinafter set out.

I have intentionally refrained from summarizing the evidence of each witness who testified at the hearing before the Joint Board. Instead, I have concentrated on dealing with a number of specific issues which I consider to be essential in arriving at a proper disposition of the subject application. In this endeavour I have also, where necessary, referred to the applicable legislation and my interpretation thereof.

Inasmuch as my colleagues have referred by way of summary to the evidence given by members of the public both in opposition to and in support of the proponent's application, I have again found it unnecessary to do so. I am, however, indebted to the many members of the general public who took the time and effort to attend the hearing and make their views known to the Board.

As I do not concur with the decision of the majority which constitutes the decision of the Joint Board, I have generally used throughout my reasons for decision the first person singular, "I". Where the term "Board" or "Joint Board" is on occasion used by me in these reasons, it refers specifically to the panel appointed by the establishing authority and constituting the Joint Board under the provisions of the Consolidated Hearings Act.

HISTORICAL OVERVIEW

Although it may be argued that the genesis of the present project can be traced as far back as the 1950's, I have chosen, as a starting point, the Hamilton Area Transportation Study (H.A.T.S.) dated May, 1963 and filed in these proceedings as Exhibit 399. This study sets out a comprehensive transportation plan for the study area, based on an expected population forecast of 723,000 by the year 1985. The East-West Freeway proposal mentioned in the study referred to one located in the lower City and which connected the Queen Elizabeth Way to Highway 403.

The recommendations set out in the H.A.T.S. study were further reviewed in a functional study conducted by a consortium of consultants comprised of C.C. Parker & Parsons, Brinckerhoff Limited and De Leuw Cather, Canada Ltd. This latter study included what was then referred to as the "future Red Hill Creek Freeway" and, in a progress report to the East-West Freeway Technical Committee of City Council, comprised primarily of traffic engineers and planners employed by the City and the provincial Department of Highways, the consultants reached three basic conclusions, namely; that the basic freeway system proposed in the H.A.T.S. study was sound; that investigations indicated that the North-South Freeway would be a collector facility for the mountain area, since 50% of the traffic was destined to the central business district and the industrial area; and that investigations indicated a need within the planning period for the extension of the East-West Freeway westerly to Highway 102 and easterly into the Saltfleet-Stoney Creek area. This report, dated August 31, 1967 and forming part of Exhibit 590, went on to state in part:

> "Further, there seems to be little doubt, if any, about the location of the future Red Hill Creek Expressway or any other road, except the alignment

> of the East-West Expressway between the Hamilton Shopping Plaza and the Queen Elizabeth Way."
>
> "There will be no doubt that the future Red Hill Creek Expressway should have a higher type connection to the East-West Expressway."

City Council in a resolution dated February 27, 1968 and filed as Exhibit 402 located the Mountain Freeway approximately 250 feet south of Limeridge Road which is the location of the east-west arterial in the proposal before this Board.

Of interest, however, is a decision of the City Board of Control on April 24, 1970 recommending that the East-West Freeway project (the one in the lower City) not be proceeded with in view of the large number of homes required for this project and the destruction to industry and institutional buildings involved in the alignment together with the costs involved. City staff, in co-operation with the staff of the Department of Highways, was instructed to conduct studies to find an alternate proposal to meet the City's future needs for the movement of traffic into and out of the Hamilton area.

Also of interest was a letter dated May 14, 1970 from the City Engineer to the Department of Highways, indicating that (at least in the mind of the City Engineer) the Red Hill Creek Freeway was to be proceeded with and, accordingly, an interchange would be required for the connection of the Red Hill Freeway to the Queen Elizabeth Way.

In 1972 the City Board of Control made a submission to the Minister of Transportation and Communication which alluded to the H.A.T.S. study completed almost a decade earlier and which recommended that a freeway pass through the upper City as close as practical to the southern limit of development. Its function was described as serving a major east-west travel desire which was developing as urban development extended southward on the Escarpment. The suggested route would link the upper City urbanization with the outlying areas to the east and west and, as well, at the same time, accommodate the through movement of vehicles between Highway 403 and the Queen Elizabeth Way.

The freeway route, as recommended in the H.A.T.S. study, had been incorporated into Official Plan Amendment 228 approved by the Minister on September 19, 1969. The alignment of the freeway, known as the "Highway 53 Freeway" or the "Mountain Freeway", had been surveyed and established 300 feet south of Limeridge Road and had since been designated on all neighbourhood plans which had been developed in the area through which the freeway passed. The submission then indicated that the City had been trying to acquire and control the development on the freeway lands and stated that the City would deny re-zonings within the freeway corridor even though the City was uncertain whether the Ontario Municipal Board would uphold the restrictions by reason that the City could not indicate that it intended to acquire the lands within a reasonable period of time.

An estimate of the current costs to acquire the freeway lands was put at $4.3 million, which included certain lands to be acquired from Ontario Housing Corporation. As well, the submission indicated that as many as 75,000 persons would comprise the Saltfleet community development by the year 1985. The City's submission concluded by requesting provincial funding for the acquisition of lands and construction of the Mountain

Freeway as a connection from Highway 403 easterly to the Queen Elizabeth Way.

On April 5, 1972, a meeting was held between the City of Hamilton's Planning and Engineering staff and the staff of the Department of Transportation and Communications for the purpose of "discussing in detail various points of mutual interest and concern regarding the proposed cost-sharing agreement between the City of Hamilton and the Department of Transportation and Communications for the Hamilton Mountain and Red Hill Creek Expressway".

The minutes of this meeting indicated that amongst those attending it was agreed that the cost sharing should be considered on a 25%-Hamilton - 75%-DTC basis covering property acquisition and construction and maintenance of that portion of the expressway within the 1972 Hamilton City boundaries. It was also decided that a technical advisory committee would be established and the concern was expressed that although the City was in agreement that the Red Hill Creek portion of the expressway was needed, environmental problems which could be foreseen could stall the entire project. The DTC officials, however, advised the City representatives that the province would require a commitment for the entire expressway, extending from the westerly limits of the City of Hamilton to the vicinity of the Queen Elizabeth Way at Stoney Creek.

A DTC internal memo dated April 11, 1972, from R.G. Gascoyne, Regional Director, recommended to other Ministry staff that the entire expressway, as outlined in the H.A.T.S. study, should be included in the Terms of

Reference i.e., the Hamilton Mountain section and the Red Hill Creek section of the expressway.

Although the City appointed its representatives to the Technical Advisory Committee in April of 1972, Council requested that the Committee, in considering the alignment of the Red Hill Creek Expressway, give consideration to the location of this alignment, bearing in mind the effect of such alignment upon the ecology of the Valley.

The minutes of a meeting of the Technical Advisory Committee, dated March 23, 1973, referred to comments by Mr. J.R. Jones, Secretary of the City Board of Control, who was of the opinion that the Committee should advise the Board of Control that the Mountain Freeway alignment had once again been reviewed and that it was the unanimous decision of the Committee that the alignment remain as set-out in the proposed agreement. It was also his opinion that the Technical Advisory Committee should make some statement on the Red Hill Creek Expressway alignment, stating that "technically" and "ecologically" the alignment is in the best location.

On May 14, 1973 a report was prepared by the City's Planning, Engineering and Traffic Technical Committee (filed as Exhibit 444) which appeared to follow Mr. Jones advice and stated on page 2:

> "A freeway can be located in the Red Hill Valley without creating significant adverse impacts on existing or planned recreation and conservation facilities (see figure 2), particularly if proper precautionary measures are taken during construction and proven environmental protection features are incorporated in the design of the facility. Furthermore, by utilizing the natural cut of the Red Hill Valley across the escarpment, the presently planned location minimizes damage to the Niagara Escarpment."

The report justified the building of the expressway essentially on transportation grounds and did not, in any way, refer to the Region's alternative rationale of promoting economic stimulation above the Escarpment.

With respect to the issue of need, the report concluded in paragraph 4 that:

> "...the mountain portion of the Mountain-Red Hill Freeway in its presently planned location, will provide the transportation functions described earlier in the report as; a) providing additional capacity for local mountain travel in an east-west direction - by the year 2000; b) providing a Hamilton by-pass route for traffic travelling between Highway 403 (and areas south and west of Hamilton) and the Queen Elizabeth Way and providing a properly designed and constructed route for Hamilton bound heavy trucking so that east-west truck traffic on the mountain can be diverted to this route, thereby relieving the existing and future residential development along Rymal Road from adverse impacts caused by heavy trucking. In addition, it will contribute some relief to the existing mountain access routes by rerouting some north-south traffic to the Red Hill Freeway... ."

It was the opinion of this Committee that the elimination of the East-West Freeway in the lower City would increase the need for an east-west by-pass facility on the mountain.

In passing, it should be noted that this report was not produced by the proponent to those in opposition and its existence first came to light when Mr. Dutchak, the witness from the Ministry of Transportation and Communications called by the proponent, produced the same on the second day of his cross-examination.

City Council had adopted a resolution stating that "this Council may declare its intention to retain the natural character of the Red Hill Creek Valley and to maintain its present natural state". Upon learning of the City's position rejecting the Red Hill Creek Valley as a possible route for a freeway, the Ministry elected to advise the City that it could not agree to the exclusion of the Red Hill Creek corridor as one of the alternatives to be studied, and that if the City did not agree to its inclusion, then the funding agreement would be cancelled and possibly reactivated with the Regional Municipality of Hamilton-Wentworth when the Regional road study was completed (scheduled for September 1974).

The Ministry also raised the possibility in its internal memo dated May 2, 1974 that the Region be advised to consider the Mountain-Red Hill Creek Freeway as part of the future Regional road system. The same memorandum indicated that the Nanticoke-Hamilton Transportation Corridor Study then being activated by the Provincial Regional Transportation Office would assume, for the present, that the Hamilton terminal was to be located in the vicinity of the Red Hill Creek Expressway, and that flexibility should be allowed for possible changes in the location of the Queen Elizabeth Way connection. At this stage, the Agreement between the Ministry of Transportation and Communications and the City had not been signed and the Region, by resolution approved June 4, 1974, recommended:

> "...that the Ministry of Transportation and Communications and the area Municipality of Hamilton undertake an appropriate study of all possible routes for a freeway connection between the East-West Mountain Freeway and the Queen Elizabeth Way, excluding the Red Hill Creek Valley. These studies were to include any social, ecological and environmental implications of the alignments to be considered." (emphasis added)

Notwithstanding the Ministry having indicated previously that the Agreement with the City would be cancelled if the Red Hill Creek Valley route were excluded, a Memorandum of Agreement dated the 7th of June 1974 appears to have been signed by both the City and the Minister. On June 25, 1974 a meeting of the City Provincial Technical Advisory Committee was held and the Secretary of the Committee was instructed to advise Regional Council that "no alignment will be excluded from the study" as per the Freeway Agreement which had at that time been executed.

It is of some significance that the Technical Advisory Committee comprised of non-elected officials chose to ignore the resolutions passed by both the City and Regional Councils who had, at this point in time, clearly indicated that the Red Hill Creek Valley was to be excluded from any study concerning possible routes for the north-south segment.

The significance of this action on the part of the Technical Advisory Committee was not lost upon the City's Board of Control who on July 4, 1974, instructed its Secretary to write to the Secretary of the Technical Advisory Committee reiterating that:

> "...the City Council has made it quite clear that the Red Hill Creek Valley is to be excluded from any study on possible alignments for this freeway. The resolution of City Council in this regard should be stressed with the City-Provincial Technical Advisory Committee so that there is no misunderstanding and studies undertaken are not to include the use of the Red Hill Creek Valley."

Because of this apparent impasse, a meeting was proposed between the Minister of Transportation and Communications, the Mayor and the Regional

Chairman to explore each of their positions and hopefully resolve the question of whether or not the Red Hill Valley should be included as one alternative alignment to be studied for the North-South Freeway. This meeting evidently took place on September 3, 1974 with the result that the Ministry would undertake a systems study on various alternative alignments for the proposed North-South Freeway to determine the impact of traffic on each alternative. This study was ultimately carried out and resulted in what has been described at the hearing as the "Radbone Study" and which was prepared in draft form some time towards the end of December, 1974.

This report was reviewed by the City-Provincial Technical Advisory Committee who then recommended to the City Board of Control in a letter dated January 20, 1975 that the Board of Control and City Council confirm their agreement to by-law 74-109 to authorize the making of an agreement with the Province of Ontario concerning the proposed Mountain East-West Freeway, the proposed North-South Freeway and the executed Agreement dated the 28th day of March, 1974 and:

> "...on the basis of the findings of the Radbone Study that the Red Hill Creek route remain as an alternative and that a more detailed study of the "no-freeway", "Red Hill Creek" and "Highway 20" alternatives be undertaken by the Technical Advisory Committee under the Agreement dated the 28th day of March, 1974 to include ... environmental impacts, social impacts, economic analysis, and public participation."

It remains to be seen how closely the conclusions arrived at in the Radbone Report resemble the conclusions arrived at by the proponent in its environmental assessment of the proposed undertaking.

By April of 1975, the Regional Director of the Ministry of Transportation and Communications had concluded that inasmuch as the City of Hamilton had passed by-law 75-84 to adopt Amendment 297 to the City's Official Plan, deleting the Red Hill Creek Expressway, Council's action was inconsistent with and in fact directly opposed to the spirit and intent of the Agreement of March 28, 1974 signed between the City and the Ministry. The recommendation by MTC's Regional Director was that the City be notified of the Province's withdrawal from the Agreement in view of the City Council's position with respect to the Red Hill Creek Valley segment.

The City at this time was expressing concern that the Ministry was holding up payment of subsidies with respect to the City's property acquisition along the alignment of the east-west segment and, during the spring of 1975, attempted to obtain these funds while at the same time excluding the Red Hill Creek alignment from any further study.

A further meeting took place with the Minister on July 11, 1975 wherein the Minister indicated that he would be prepared to accept the City's position to exclude the Valley from further study; however, in such case the Ministry would be unable to subsidize property acquisition for the Mountain Freeway alignment as it would have no provincial network function.

In February 1976, although the Board of Control had recommended to City Council that the Red Hill Creek alignment be one of three alternative proposals considered for a study, such recommendation was defeated by Council.

On March 2, 1976, the Minister advised the City Board of Control that he accepted Council's decision in this matter and requested that Council formally confirm its desire to withdraw from the Agreement between the City and the Ministry dated March 28, 1974. At that point in time, the Ministry was prepared to authorize the normal 50% subsidy for lands being acquired along the route of the East-West Mountain Freeway, subject to the normal controls and constraints applied to other subsidizable works.

The appointed officials comprising the City Provincial Technical Advisory Committee then proposed on April 20, 1976 that the Committee recommend to the Board of Control that the Regional Municipality of Hamilton-Wentworth be requested to enter into an agreement with the Minister of Transportation and Communications for the Province of Ontario to undertake a Regional Freeway Study and that no further action be taken by the City on the Agreement dated March 28, 1974 between the City and the Minister. It should be noted that later that year, in October of 1976, the Hamilton Region Conservation Authority completed its studies concerning environmentally sensitive areas, of which more will be said later in these reasons.

On July 25, 1977, a study entitled "The Hamilton Mountain Freeway Study" was released indicating that an east-west freeway along the existing proposed alignment connecting to a north-south freeway would, from a traffic generation standpoint, best satisfy the anticipated travel demands and on the following day City Council adopted a resolution stating, inter-alia:

> "...that all reasonable alternatives to the north-south freeway be undertaken at the same time which

> will include an environmental study of the effect on all freeway alternatives in both corridors."

Thus for the first time the City Council had removed its long-standing objection concerning the Red Hill Creek Valley and was prepared to have the Technical Advisory Committee study all reasonable alternatives for both the East-West Freeway across the mountain and the North-South Freeway. The exact reasons for this abrupt change in position remain unclear to this day.

In October of 1977, the Chairman of Region of Hamilton-Wentworth advised the Minister that Regional Council was prepared to enter into a tri-parte agreement with the City of Hamilton and the Ministry to undertake a study of the Mountain East-West Freeway and the North-South Freeway and, further, to examine all arterial and highway roadways connecting to the proposed freeway system.

By December 1977 Regional Council had adopted a resolution to undertake the study, subject to a provincial subsidy of 75%. The study would be managed by a steering committee to which a working committee reported on the technical conduct of the study, and a consultant would be retained to undertake it.

It is of some importance to note that many of the same individuals associated with earlier reports and members of the City-Provincial Technical Advisory Committee also became members of the Working Committee referred to above.

The consultant ultimately retained was none other than De Leuw Cather, Canada Ltd. (DelCan) which had, in conjunction with the C.C. Parsons firm, produced the earlier 1967 report recommending the Valley route.

It is at this point in time that the formal study began which ultimately resulted in the environmental assessment submission put before this Board for its consideration.

The organizational structure, with respect to the environmental assessment of this project, was described in Exhibit 58 being Volume I of the Environmental Assessment Submission dated December, 1982. The study team was comprised of a working group known as the "Working Committee" which was responsible for the day to day activities associated with the project. This included technical representatives of the Regional Departments of Engineering, Planning and Public Transit; the area municipalities of Stoney Creek, Ancaster and Hamilton; the Niagara Escarpment Commission; the Hamilton Region Conservation Authority; the Ministry of Transportation and Communications; and staff of the consultant.

In addition, a Steering Committee was organized as a sub-committee of Regional Council. It included representatives of the elected and appointed officials of the Region, the affected municipalities and the Ministry of Transportation and Communications. Throughout the various phases of the study, the study team periodically reported to the Steering Committee for progress and policy decisions.

The Steering Committee representatives in turn informed municipal council members from time to time throughout the study phases and, in addition, formal presentations were made to the relevant Councils during Phase III.

Early in the study, study objectives were formulated and were summarized in a letter dated April 18, 1978, prepared by Mr. H.O. Schweinbenz of the Regional Engineering Department and who was also Chairman of the Working Committee. It is, in my view, significant that the first objective and, I would submit, the primary objective, was stated as follows:

> "...to document and establish the need for additional transportation facilities required to satisfy the demand in the east-west direction across the mountain and in the north-south direction at the easterly terminus of the east-west facility."

On the second page of this letter reference was made to the possibility of the project being included under the provisions of the Environmental Assessment Act. Consequently, reference was made to the fact that each of the objectives was to be determined after examination of all viable alternatives and a review of the alternatives as they affect

(a) the natural environment;
(b) the social/cultural environment;
(c) the economic environment; and
(d) the transportation environment.

The roadway facility was not, at least at that point in time, considered in terms of economics stimulus but rather in terms of meeting either existing or projected traffic demand. It should be mentioned that throughout this period the Official Plan for the Region was in the process of being developed and the Region's Official Plan was ultimately approved by the Minister of Housing on June 26, 1980. With the exception of a few sections referred to the Ontario Municipal Board, the Official Plan, in its final form, was approved on June 3rd, 1982 and filed as Exhibit 70 in these proceedings. This is of critical importance to the issue of need, particularly as it relates to the question of anticipated traffic demand, for the population and employment projections used in the preparation of the Regional Official Plan were ultimately shown to have been in substantial error.

It is also of interest to note that the Steering Committee, at its meeting held on June 28, 1978, expressed a concern over the use of the Official Plan projections of population and employment and the distribution of those projections, especially the high employment increase in the central business district. It was suggested at that time that comparisons of projections between the Region and the six largest Canadian cities would be helpful in determining future growth.

The Ministry of Transportation and Communications and the Regional Municipality of Hamilton-Wentworth executed a formal agreement on the 12th day of December, 1978 concerning the Mountain East-West and North-South Corridor study and this Agreement provided for a cost sharing of same between the Ministry and the Region on a 75/25% basis.

Much time was spent at the hearing reviewing the various phases of the environmental assessment process, and it would not be productive to attempt to summarize the voluminous amount of data in terms of providing an historical perspective of events as they occurred. It should be mentioned, however, that the environmental assessment process undertaken by the Region was divided into four distinct phases. These are described in Exhibit 58 at pages 1-4 to 1-6.

Phase I focused on the estimation of current and future roadway deficiencies, given the forecast of travel demand and collection of relevant data on the environments potentially affected by roadway system expansion. Phase II was to identify and evaluate, in a preliminary manner, a number of reasonable alternatives, including those generated by the public, in order to select viable alternatives for more detailed analysis. Phase III involved the detailed examination and evaluation of the selected viable major alternatives in order to recommend a preferred alternative. Phase IV was to detail the selected alternative in terms of its positive and negative impacts and outline the suggested program of implementation.

The study progressed steadily, culminating with a recommendation of Alternative 2 (the proposal before this Board) and City Council, at a meeting held August 28, 1979, by resolution carried on a nine to eight vote, recommended to the Regional Council of Hamilton-Wentworth that Alternative 2 as contained in the Mountain East-West and North-South Corridors Study Report, be adopted.

On September 18, 1979, Regional Council by resolution stated that Alternative 2, being an arterial roadway alignment south of Limeridge Road and a freeway alignment along the southerly portion of Mount Albion Road, and hence northerly through the Red Creek Valley to the Queen Elizabeth Way, be adopted as the alignment for the new transportation facility required to meet a portion of the future travel demands within the Region, and that additional lands for future interchanges on the east-west portion be identified and protected for future use.

Although there was ample evidence to indicate to both Councils that the population and employment figures upon which the traffic demand forecasts were based were in fact incorrect, it was not until sometime later that any re-evaluation was done. The new information was presented in a revised travel forecast prepared in 1982 and exhibited in these proceedings as Exhibit 172.

Additional computer modelling was conducted by the Region based on the revised population figures, and the ultimate conclusion derived from this additional modelling remained the same, namely; that projected traffic demand indicated a need for the roadway facility and that the preferred choice continued to be that of Alternative 2.

ISSUE OF "NEED"

Before reviewing in some detail the evidence concerning the issue of need before this Board, I wish to set out my reasons for placing the primary basis for approval of the undertaking upon the establishment of a demonstratable "need" for the undertaking. Although a number of factors, in addition to the question of need, will be included in the overall decision-making process, the failure by the proponent to establish a clear and identifiable need for the undertaking will, in my view, inevitably result in a rejection of the proposed application. As noted in the decision of the majority, this application involves, inter alia, the provisions of the Environmental Assessment Act and Section 64 of the

Ontario Municipal Board Act. In my view, the requirement of the proponent of an undertaking having to prove "need" for an undertaking subject to the provisions of the Environmental Assessment Act, is clearly implied by both the wording of the sections and stated purpose of this Act.

The purpose of the Environmental Assessment Act is set out in Section 2 as:

> "...the betterment of the people of the whole or any part of Ontario by providing for the protection, conservation and wise management in Ontario of the environment."

A proper evaluation as to whether or not the proposed undertaking contributes to the "betterment" of the people of the whole or any part of Ontario...would surely imply a need for the undertaking itself. If, on the evidence, there is no such need clearly demonstrated then, in my opinion, it follows that the proposed undertaking cannot contribute in any meaningful way towards fulfilling the purposes of the Act.

In addition, Section 5(3) of the Act requires the proponent to submit to the Minister an "environmental assessment" consisting of both a description of the "purpose" of the undertaking and a description of and a statement of the "rationale" for,

i) the undertaking;
ii) the alternative methods of carrying out the undertaking; and
iii) the alternatives to the undertaking.

Both the purpose and rationale in relation to the undertaking clearly depend upon an underlying concept of "need", either perceived or actual and this, in my view provides the only rational basis upon which a responsible proponent could put forward a proposal for approval.

It is quite conceivable that the rationale or "reasons for" the undertaking can be based upon different, though in most cases complimentary, sets of factors and the Region, in this case, sought to justify its proposal on several grounds referred to hereafter.

Whether or not the requisite "need" for the undertaking has been proved to the satisfaction of the decision-maker will remain an important, if not the most important issue to be considered in any application under the Environmental Assessment Act and must be evaluated in the context of the wide definition of "environment" provided in the Act, as well as its stated purpose.

The validity of this interpretation is further reinforced when one considers the specific wording contained in Form I enacted pursuant to the Regulations to the Act. This form, entitled "Summary Form for an Environmental Assessment Submission", states that a resume of an environmental submission should contain, inter alia;

"justification of the need for the undertaking."

The Environmental Assessment Board has in the past interpreted the provisions of the Act to require the proponent to prove need, and indeed it was not otherwise argued by the proponent or the opponents at the hearing.

I would add, however, the further observation that, in my view, in circumstances where approval of the undertaking would result in a fundamen-

tal irreversible change in the character of a natural resource such as, in this case, of the Red Hill Creek Valley, the need for the proposed roadway facility must be both *real, substantial and where projected for the future, reasonably certain to occur*.

If a significant degree of uncertainty exists as to whether or not the projected need or perceived "betterment" will in fact be realized at some point in the future, then any *permanent irreversible* alteration to the intrinsic character of a resource in its natural state, should *not* be undertaken and approval to proceed with the undertaking should be refused.

In passing, it should also be noted that the Ontario Municipal Board, and in this case the Joint Board, is required under the provisions of Section 62 of the *Ontario Municipal Board Act* to inquire into

"the necessity or expediency"

of the undertaking that is proposed to be proceeded with prior to the Board granting approval under Section 64. To paraphrase the words of the statute, the Joint Board should be satisfied with respect to the issue of need for the undertaking prior to granting approval for a municipality to proceed with an undertaking, the cost or any portion of the cost of which is to be raised in a subsequent year or years.

How then was the fundamental issue of need addressed by the proponent in its application before the Board? It would be an understatement to suggest anything other than the fact that this issue contributed heavily to the voluminous amount of the documentary and oral evidence that both the proponent and the opposition led by Mr. Turkstra, placed before the Joint

Board for its consideration. It would be impossible in these reasons to review in any great detail the many weeks of evidence given by the principal expert witnesses called by the parties, however, I shall attempt to set out as concisely as possible my conclusions drawn from the evidence and, where appropriate, will refer to the specific statements or documents upon which my conclusions are based.

One of the principal rationales put forward by the Region in support of its application was based upon the proposition that the proposed roadway facility was necessary to address an anticipated capacity deficiency with respect to the existing road system, projected to develop within the current planning horizon ending in the year 2001.

If the rationale for the proposed undertaking is indeed predicated to a large degree upon anticipated future traffic demand, one must be satisfied that not only will there be a reasonable expectation that the projected traffic demand will in fact materialize, but also that the magnitude of any corresponding capacity deficiency justifies approval of the undertaking in terms of the physical, social and economic impacts which may be associated with a major project of this size.

It follows that in order to properly ascertain any projected deficiency in road capacity the planners, traffic engineers, consultants and others must possess a reasonably sophisticated appreciation and understanding of reliable population and employment distribution forecasts as they apply to the specific geographic areas under consideration. As will become evident in these reasons, the underlying data and in some cases the methodology employed in arriving at these demographic forecasts became the focal point of serious disagreement amongst the experts called on behalf of the proponent and those in opposition.

As mentioned earlier, there may be more than one rationale put forward in support of a particular undertaking and considerable evidence was adduced at the hearing to support the proposition that, in addition to addressing anticipated traffic demand, the undertaking would also enhance and encourage both industrial and residential development above the Escarpment. It would also alleviate, to some degree, the problems associated with the movement of large, heavy trucks through some other residential streets of the lower City in proximity to the Bayfront industrial area.

Each of these additional or alternative rationales will be subsequently dealt with separately in these reasons for decision.

In order to impart some sense of organization into this section of my reasons, I propose to discuss the issue of need for the undertaking under the following headings:

i) Need for the roadway on the basis of projected traffic demand;

ii) Alleviation of existing traffic problems of an operational nature; and

iii) Justification of the road on the basis of providing an impetus to economic development of the Region.

Although Counsel for the proponent also alluded to a fourth rationale in support of its application; that of "good planning", it is my view that it is incumbent upon the proponent to prove need in terms of one or more of the three principal rationales referred to under the above-mentioned headings.

NEED FOR THE ROADWAY ON THE BASIS OF PROJECTED TRAFFIC DEMAND

In order to project future anticipated traffic demand across the Escarpment and thus establish a need for the proposed roadway facility, it was essential, in my view, for the proponent to validate its projections on the basis of reliable forecasts with respect to both population and employment distribution. If it can be demonstrated that the population and employment distribution forecasts used by the Region in their assessment were in fact wrong, or at the very least unreliable, then it follows that any conclusions based upon such erroneous or unreliable data are in themselves erroneous or unreliable.

Much of the Region's case was an attempt to show that, notwithstanding the fact that the original environmental assessment undertaken by the Region relied on population figures substantially in excess of those currently projected and accepted as reliable for the planning horizon of 2001; nevertheless, re-evaluation of projected traffic demand in the light of the current population figures yielded substantially the same conclusion, i.e. the roadway facility was needed to meet projected traffic demand crossing the Escarpment toward the end of this century.

The success or failure of the Region's application, in my view, rests in large part on this single issue and, after carefully weighing all of the evidence put before the Board at this hearing, I have reached the inescapable conclusion that the proponent has failed to prove need on the basis of projected traffic demand that would justify approval of this project.

The evidence at the hearing concerning population and employment distribution focused upon the evidence of Mr. Luken Robinson, called by Mr. Turkstra, and who presented to the Board a critical evaluation of the figures and projections used by the Region as well as the methodology employed in connection therewith. It should be mentioned at the outset that Mr. Robinson's background and experience as a demographer and in the area of statistical analysis relating to demographic, economic and social development, is impressive. Moreover, I found Mr. Robinson's testimony before this Board to be most credible and his conclusions remained, in my view, for the most part intact, notwithstanding arduous cross-examination on the part of the proponent's counsel.

Those conclusions were set out in Mr. Robinson's notes filed as Exhibit 506A and were supported by a series of tables filed as Exhibit 506B. The basic conclusions reached by Mr. Robinson were summarized by him as follows:

> 1) "The population for the Region of 445,000 people is acceptable for planning purposes although that does not mean that it will be reached precisely in the year 2001 but sometime in the period around the year 2001, and more likely later than earlier, however, it probably will be reached." (Record, Volume 71, page 15,021)

* * *

> 2) "The allocation of that population to different parts of the Region cannot be used to justify the expressway because in making those allocations the

> planners who did that assumed that the expressway would be built and, consequently, they set up an allocation which is that case is valid and in a sense it requires the expressway and this was not a proper way of proceeding." (Record, Volume 71, page 15,021)

* * *

> 3) "The population which is now characterized by the Region as the mature state of 550,000 people will never be reached."

Mr. Robinson supports this conclusion from an analysis of the population projection made by the Region in which they arrived at the most likely population for 2001 of 445,000 people. In Mr. Robinson's opinion, after the population of the Region reaches 445,000 people it will then begin to decline. (emphasis added) (Record, Volume 71, page 15,022)

* * *

> 4) "The Region's Official Plan was intended to accommodate a population of 550,000 people and accordingly called for a development capacity for the population to accommodate that population. It has been generally accepted by everyone that there is now only a need to accommodate only 445,000 people within those development capacities specified by the Official Plan and there are alternative ways of accommodating this lower number."

In Mr. Robinson's view, the allocation which has been used in the document to forecast travel demand, especially across the Escarpment, is only one of the possible allocations of the 445,000 that would be consistent with the Region's Official Plan, and there are others which can be thought of which would likewise be consistent with the Region's Official Plan. (emphasis added) (Record, Volume 71, page 15,022)

* * *

> 5) "Inasmuch as there are benefits claimed from the building of the expressway in terms of additional

> industrial development, additional housing and additional retail and office space extending over a period of 40 years to the year 2025 any economic forecasting stretching that far into the future has an enormous and inevitable element of uncertainty about it." (Record, Volume 71, page 15,023)

* * *

6) "If the Region wants to assure the employment that is necessary to provide for the population of 445,000, its emphasis must be on the development of services, at least as much and perhaps more than on the development of industry, of goods production." (Record, Volume 71, page 15,025)

* * *

Mr. Robinson concluded that since some of the data used as input to the traffic model was questionable, the output of the model must also be questionable.

It appears that the Region developed the population figures upon which it relied for the assessment of its undertaking on or about 1976 in a study prepared for the preparation of the Region's Official Plan entitled "Population Future Growth - Regional Official Plan Study". That document projected a most likely population for the region of 550,000 people in the year 2001. It has been acknowledged by several witnesses that this projection was prepared at a time when population projections in Ontario and elsewhere were very much higher than they are presently and are to that extent unreliable. The 1976 and 1981 census confirmed, in effect, lower population figures for both Ontario as a whole and the Hamilton-Wentworth region in particular and, in consequence, revised population projections were made.

The Region undertook a review of their own work and produced a further study entitled "Hamilton-Wentworth Population Projections - 1981 Review" filed as Exhibit 32 in these proceedings. The 1981 Review concluded that the most likely population in the year 2001 would be that of 445,000 people.

Mr. Robinson accepts this projection as being reasonable; however, on the basis of a slightly different net out-migration, and on the basis of census results, concludes that his alternative most likely projection for the year 2001 would be in the vicinity of 420,000 people. Based on all of the information we have at the present time, he stated that:

> "the Region's population in 2001 will be somewhere in between 420,000 and 445,000 and...the probability of it being lower is rather small and equally the probability of it being higher small and the overwhelming probability is that it will be somewhere between that" (Record, Volume 71, page 15,059)

It further follows from the analysis that the age distribution of the population which has been forecasted is absolutly crucial to any discussion of employment and travel related to employment and in this regard Mr. Robinson finds no fault with the age distribution used by the Region in relation to the population projection of 445,000 people. Although the Region presented the figure of 550,000 as being that of a "mature state population" Mr. Robinson was of the view that that was a totally irrelevant population because it will never in fact be reached.

If such is the case, and I am convinced by the evidence that it is in fact so, then one can begin to appreciate the magnitude of this erroneous assumption which formed the basis of the environmental assessment undertaken by the Region and its consultants.

The sequence of events, some of which were mentioned earlier in the historical overview, are important and a quick review of Chapter 1 of Volume 1 of the Environment Assessment submission filed as Exhibit 58 will place some of these events in the appropriate context.

On page 1-9 of Exhibit 58 the following is stated:

> "The investigation outlined in this submission is a further stage in the planning process. The project was initiated in February 1978. The submission of the reports for each of the initial three phases is summarized below.
>
> Phase 1 - Future Road Needs and Data Collection, July 1978
>
> Phase 2 - Preliminary Evaluation of Alternatives, January 1979
>
> Phase 3 - Detailed Impact Assessment and Evaluation, August 1979.
>
> At the conclusion of Phase 3, a summary report (June 14, 1979) of the three previous phases was prepared and presented to Regional Council. At a special meeting of Regional Council on July 18, 1979, organizations and individuals were afforded an opportunity to voice their opinion directly to Council. In total, 32 briefs were presented.
>
> Subsequently, Regional Council adopted the recommendations of the Steering Committee and directed the study team to proceed with the following:
>
> . the preparation of a functional planning report for the selected alternative;

> - development of a conceptual recreation master plan for the RedHill Creek Valley compatible with the proposed roadway facility;
> - preparation of a submission to the Ministry of Environment in accordance with the requirements of the Environmental Assessment Act, 1975.
>
> The functional planning document detailing the refinement of the preferred alternative was submitted in September 1981. The report describing the feasible development of the recreational resources of the Red Hill Creek Valley was prepared in parallel with the functional planning of the roadway. The Recreation Master Plan document was submitted in January 1982.
>
> During the fall of 1981, the forecast of population and employment growth within the Region of Hamilton-Wentworth was adjusted significantly. In addition, Regional Council rejected the introduction of a rapid transit link between the mountain urban area and the core area. As a result, the forecast of transportation demand and related roadway deficiencies were revised to reflect these decisions. The updated travel demand forecasts were completed in July 1982.
>
> The findings and conclusions derived from the preceding investigations were reappraised in the light of the revised travel forecasts. The intent was to determine if the rationale for the undertaking remained valid. The conclusion of the re-appraisal was affirmative and the decision was made by the Region to proceed with the environmental assessment submission incorporating the results of recent investigations."

It is therefore well beyond any doubt whatsoever that many of the crucial decisions were made on the basis of both population and employment figures which became, towards the end of the process, no longer acceptable by anyone.

It is impossible to speculate what would have occurred in terms of the ultimate conclusion reached as a result of the assessment process had the appropriate population figures been used throughout. It is clear, however, from my appreciation of the evidence, that the lower figures cannot produce a sufficient traffic demand crossing the Escarpment necessary to justify approval of this application.

Mr. Lederer put forth the argument that the planners should not base their planning on a projected decline in population, for if one has faith in the proposed project, a solution to any projected decline in population could well have been found. This may or may not be a viable general proposition if one emphasizes the rationale of the road facility as being that of increasing economic development. However, that was not, in my view, the primary basis upon which this facility was put forward. A decline in population will substantially affect traffic demand and may negate the need for the facility on that basis entirely.

In order to measure the ability of the existing road system to handle projected future traffic demand, it was necessary for the Region to evaluate the capacity of the existing roads and, in particular, the existing Escarpment crossings. In that regard, Mr. Keith McLean, a traffic engineer with Delcan, with considerable experience in capacity analysis, was called as a witness by the Region to review the modelling program undertaken by the Region. Mr. McLean gave his opinion with respect to the issue of road capacity and estimated the theoretical capacity of the existing escarpment crossings at level of service E to be approximately 18,700 vehicles per hour which, after applying acceptable reductions, would give an operational capacity of approximately 16,200 vehicles per hour in a given peak period. Mr. Murray Main, a traffic engineer employed firstly by the City and then by the Region in the Traffic Department, was in agreement with the capacity analysis presented by Mr. McLean. Indeed, even

Dr. Richard Soberman, a traffic engineer called by Mr. Turkstra, who also possessed considerable experience in this area, was in substantial agreement with Mr. McLean's analysis although Dr. Soberman did feel that the capacity figures put forward by Mr. McLean were slightly high due to the absence of a margin of error factor being built into the equations used. In my view, however, the 16,200 vehicle per hour figure arrived at by Mr. McLean was not seriously challenged. It is fair to say that there was much more controversy present over the methods and data used to assess traffic demand, particularly with reference to the Escarpment crossings.

The modelling program undertaken by the Region to assess traffic demand was done by Mr. John Barr, a transportation engineer and manager of transportation research for the Region. The type of model used had been developed by the Ministry of Transportation and Communications for traffic demand forecasting and is made up of a series of mathematical equations concerning certain known and understood relationships. It is with respect to this model that the elements of population, population allocation, household size and labour force participation rates become important, and variation with respect to the inputs to the model will, of course, result in corresponding variations in the output figures representing projected traffic demand. The overall population figure for the Region projected for the planning horizon of 2001 has been discussed earlier and will therefore not be repeated here. There was considerable discussion at the hearing concerning the use of appropriate fertility rates and migration rates, however, in my view, the differences suggested by the expert witnesses were insignificant. I do find, however, that I am in agreement with Mr. Robinson's view that the population for the Region will enter into a period of decline towards the end of the 1990's and into the first few years of the next century.

A more serious area of disagreement arose, however, with respect to the allocation of that population.

Both Mr. Robinson and Dr. Soberman indicated in their evidence that at least some of the population projected for the area above the Escarpment could and should be properly located below the Escarpment and thus result in a decrease in the number of Escarpment crossings.

I do not intend to enter into a detailed discussion of the various theories put forward by the witnesses called by both the Region and those in opposition to support their respective population and employment distribution forecasts for, in my view, this is of little consequence when one looks at the bottom line concerning the particular issue under discussion.

As indicated earlier, a modelling program was developed to forecast travel demand. The model operated as a p.m. peak hour model; i.e. it simulated the travel demand for the p.m. peak hour, which is said to be the busiest hour of a typical 24 hour day. The inputs were fed into the model, taking into account statistical data available for the particular region under study, with validation checks being made at appropriate intervals in order to ensure that the model was working with some degree of reliability.

Mr. Barr then ran a series of model runs under varying sets of assumptions with the result indicating the total demand across the Escarpment.

The analysis was carried out in terms of individual screenlines, however, inasmuch as the concern relates to trips across the Escarpment, it is perhaps of more value to talk in terms of total demand across the Escarpment. The results of the Region's modelling program indicated in terms of what has been referred to by the Region as a "mature" state population of 550,000 people, a total demand across the Escarpment of 21,300 trips, 9,300 of which would be transit users.

A series of runs was conducted using the modified population figure of 445,000 coupled with variations of employment and population distribution as well as a model split of 17% and in one case 14.5%. The runs based on a population of 445,000 people in the year 2001 indicated a traffic demand ranging from a high of 20,200 to a low of 16,700. The Region, in argument, rejected the traffic demand figure based on a population of 550,000 people on the grounds that that population figure is certainly not realistic for the year 2001. The figure of 16,700, based on a population of 445,000 people was also rejected on the basis that, for planning purposes, it is inappropriate to plan for the "worst case" condition.

In the Region's view, the appropriate range would be between 17,500 and 20,200 to be compared against the operational capacity calculated by Mr. McLean to be approximately 16,200. That would leave an operational deficiency in the year 2001 of approximately 1,300 to 4,000 vehicles. Mr. Turvey, also a transportation engineer and Delcan's project manager, chose a figure of 3,000 representing the projected deficiency and which was consistent with the analysis undertaken at the time at which the environmental assessment was prepared. In effect the additional work undertaken by Mr. McLean and Mr. Barr according to the Region, confirmed the earlier deficiency analysis referred to in the environmental assessment submission. The Region therefore urged the Board to base its considerations on the fact that in the year 2001, at a population of 445,000, there would be a deficiency of approximately 3,000 vehicles based on the present capacity of the road system. It was argued that this deficiency justified and demonstrated the demand for two freeway lanes in the north-south direction which in turn justified, on the basis of demand, the construction of the proposed roadway.

The witnesses called on behalf of those in opposition, specifically Dr. Soberman and to some extent Mr. Robinson, spent literally days in the witness stand indicating why, in their opinion, the forecast of travel demand arrived at as the result of the Region's modelling program was in fact too high and in any event was unreliable because of a variety of factors. Some of the factors cited were the use of travel characteristics based on travel behaviour identified in 1974 and not updated since; the use of an all-or-nothing trip assignment when in reality many persons travelling in the peak hour were non-work or optional travellers who could avoid travelling during the peak hour; and the use of calibration and validation data based on 1971 land use statistics rather than the more recent 1981 census distribution data available to the Region prior to this hearing.

It is readily apparent to me that, on the basis of the evidence presented, there is at the present time no operating deficiency with respect to the existing road system and in fact a surplus is indicated. The Region did not present any evidence to suggest other than normal congestion at the present time which one would expect to find on any road system in a populated urban area. Of more importance, however, is the fact that notwithstanding the Region's travel demand forecasts for the year 2001 and the corresponding capacity analysis, the deficiency projected is, in my view, _inconsequential and by no means certain to occur, and cannot under these circumstances justify the building of this facility on the basis of projected traffic demand_.

My conclusions in this regard are based on the following factors:

The Region's projections were not based on the most current information available which reflect declining population and employment trends and accordingly may, as is indicated by Dr. Soberman and Mr. Robinson, have resulted in inflated traffic demand forecasts.

In the course of examining alternatives 10 and 11 which use a portion of the Red Hill Creek Valley and a portion of Highway 20 and comparing these alternatives with the no-build alternative, Mr. Turvey found that the average travel time in 1979 from the Bay-front industrial area to the Saltfleet community on the mountain to be approximately 22 minutes. If the no build option was in fact chosen, then the travel time for the same trip in the year 2001 was expected to increase by approximately 3 minutes to 25 minutes. (Volume 33, pages 6,895-97)

Mr. Turvey went on to indicate that since Alternative 2 exhibited the highest level of regional accessibility, the estimate in travel time was a reduction to approximately 18 minutes and therefore the difference in travel time resulting from doing nothing would be that the same trip in the year 2001 would take approximately _7_ minutes more.

Mr. Turvey agreed with Mr. Turkstra during his cross-examination that the net effect in terms of travel time of building the facility up the Red Hill Creek Valley would be a saving in time of approximately 4 minutes at the present time, and a saving in time of approximately 7 minutes over the life of the planning period. This evidence of one of the Region's key witnesses remained uncontradicted throughout this hearing.

Surely it is stretching the point beyond all reasonable limits to suggest that a facility should be built which will inevitably alter, and one could argue destroy, the intrinsic character of a natural resource such as the Red Hill Creek Valley in order to effect a saving in travel time of perhaps 4 minutes at the present time and a maximum of 7 minutes in the year 2001. Bearing in mind that the travel demand forecasts are based on a p.m. peak hour, the level of congestion suggested by these figures is virtually non-existent for most of the day and certainly within acceptable parameters for people living within an industrialized urban area.

I am confident that the citizens of many industrialized Canadian cities would be more than content to put up with increases in travel time of only 7 minutes during what is commonly known as "rush hour" in order to preserve an irreplaceable resource in its natural state and, concurrently, avoid an expenditure of public funds of some $193 million.

Any attempt on the part of the Region to justify this facility on the basis of it being necessary to facilitate through traffic movement has, in my opinion, been completely negated by evidence adduced at this hearing by Mr. Turkstra in connection with his review of Ministry of Transportation and Communications (MTC) documentation. It should also be noted that much of this documentation was not produced voluntarily by the Region but rather uncovered by Mr. Turkstra's staff in the course of reviewing certain files made available by MTC.

On June 28, 1984, a brief was prepared by the Region and submitted to the Honourable James Snow, Minister of Transportation and Communications, concerning the Mountain East-West and North-South Transportation Corridor.

This brief recited by way of background the H.A.T.S. study which identified, among other transportation improvements, "the need for a ring road around Hamilton" consisting of the following routes:

- the Queen Elizabeth Way to the northeast (Skyway)
- the 403 to the west and up the mountain to Ancaster
- the Mountain East-West and North-South Transportation Corridor.

The brief then goes on to state that:

> "The feasibility studies confirmed the need for, and have identified the location of, the proposed project route. Approval of the general route, and permission to proceed with the hearings for approval were sought and obtained from Regional Council. The necessary studies and submissions required to proceed to a consolidated hearing have now been completed...
>
> Our studies indicate that this facility is vital to the health and vitality of our community. It will provide good access to nearby lands currently under development, provide safety improvements and traffic relief to the balance of the arterial network, and as well compliment the Province's highway network." (emphasis added)

The balance of the brief then dealt with the Region's request concerning a specific funding commitment from the Ministry of Transportation and Communications.

This brief was presented personally by the Regional Chairman, Mrs. Anne Jones, to the Minister at a meeting held in the Minister's board room on June 28, 1984. The minutes of this meeting were filed in these proceeding as Exhibit 437.

The minutes note that Mrs. Jones initiated the discussion of the proposed facility and presented the aforementioned brief. She indicated that the undertaking would apparently be opposed by the Niagara Escarpment Commission and, on behalf of the Region, requested MTC's support at the hearing.

The minutes then state, and I quote:

> "The Minister and Deputy Minister agreed that the route is needed for regional purposes, however, there is only a very limited King's Highway need. We are in support of the project but since it cannot be justified for King's Highway purposes, our studies could possibly hurt more than help. Mr. Gilbert (Deputy Minister) agreed to MTC's staff at the hearing as long as it is understood that it may be a detriment." (emphasis added)

Mrs. Jones suggested an advance meeting of Regional solicitor(s) and Mr. E.J. McCabe together with other staff as necessary, for discussion purposes so that the situation was properly understood.

The minutes then went on to state on page 2:

> "The Minister noted that this project could possibly qualify under the BILD program, and as the Region wished to have a financial plan for the

> hearing, agreed to make a presentation. The documentation should address the need for community development and economic growth rather than roads..." (emphasis added)

The Board learned from the evidence that Mr. John E. Farrow of the firm of Currie, Coopers & Lybrand Ltd. had been retained by the Region to assist it in making a presentation for funding under the BILD program. The Region's application was ultimately rejected under the BILD program and a funding agreement with respect to Stage One of the proposed facility was eventually entered into between the Ministry of Transportation and Communications and the Region.

MTC's position with respect to the proposed roadway should not have come as a complete surprise to the Region for essentially the same position had been enunciated at a meeting held in the board room of the Minister of Transportation and Communications exactly eleven months earlier on July 28, 1983. In attendance were Mrs. Anne Jones, Regional Chairman, Mr. John Prentice, Chairman of the Roads Committee and others on behalf of the Region, as well as the Minister, the Honourable James Snow, and the Deputy Minister Mr. Harold Gilbert, et al. The minutes of this meeting filed as Exhibit 590 state, and I quote:

> "On a question from Mr. Gilbert, Mr. Prentice agreed that the traffic would now be mainly regional; however, this could change with further expansion in the Nanticoke area. Comparison was made by Mrs. Jones to the Conestoga Parkway and Highway 406. Mr. Gilbert pointed out that for more than ten years the route had not had importance as a King's Highway, and with only 10% provincial traffic the Ministry would be unable to justify the undertaking." (emphasis added)

Also produced at the hearing was a memorandum dated June 14, 1984, filed as Exhibit 435, from Mr. V.C. Ma, Manager of the Transportation Demand Forecasting Office of MTC, to Mr. G.B. Wilkes, Executive Director of the Municipal Transportation Division of MTC.

It is apparent that Mr. Wilkes had requested certain information from Mr. Ma, for the cover page of his memorandum states as follows:

> "Attached, per your request, is information on the background of Red Hill Expressway, recent trends of population and traffic growth of Hamilton-Wentworth Region and our comments.
>
> We have discussed the content with H. Orlando (Regional Municipal Engineer) and John Barr of Hamilton-Wentworth."

The memorandum then states on the second last page:

> "In summary, Hamilton-Wentworth region has experienced a slow traffic growth on highways and urban road systems, particularly in the lower City area of Hamilton in recent years.
>
> The planning department in the Region indicates that traffic growth in the Region has been insignificant since 1981." (emphasis added)

On the last page, under the heading "Comments", the following is stated:

> "The concept of Red Hill Creek Expressway was conceived in the early 50's. At that time, the expressway was usually the solution to urban transportation problems. In the 70's freeway proposals, such as Spadina and Scarborough expressways in Metro Toronto gradually lost the support of the general public.
>
> The recent trends of population and traffic growth in the City of Hamilton and the Region are generally slow. (emphasis added)
>
> MTC has consistently considered that this freeway proposal should be the responsibility of the Regional Municipality of Hamilton-Wentworth."

It is of interest to note that neither Mr. Ma nor anyone from the Ministry's Transportation Demand Forecasting Office was called by the Region to give evidence at this hearing. The only witness called by the Region from MTC was Mr. Leonard Dutchak who was the Area Manager of the Planning and Design office.

In response to questions posed by Mr. Turkstra in cross-examination, Mr. Dutchak confirmed that:

> "...on the basis of trying to justify (the proposed facility) from a provincial net-work viewpoint, there is no justification because the through volumes are very small and therefore we can't support them from a King's Highway point of view." (emphasis added) (Record, Volume 60, page 12,750)

One is lead to the inescapable conclusion that the warning given to the Regional Chairman at the meeting held in the Minister's board room on June 28, 1984 should have been taken seriously, for the evidence provided by MTC at the hearing (through Mr. Dutchak) and that derived from MTC documentation, clearly does not support the Region's justification for the proposed facility on the basis of both projected traffic demand and existing traffic volumes. The overall impact of the MTC evidence was, in my opinion, undeniably detrimental to the Region's case.

ALLEVIATION OF EXISTING TRAFFIC PROBLEMS OF AN OPERATIONAL NATURE

The evidence with respect to existing traffic problems of an operational nature was given at the hearing by a panel of witnesses consisting of Mr. Murray Main, Traffic Engineer for the City of Hamilton, and Mr. Keith McLean referred to earlier, and also a Traffic Engineer employed by Delcan.

Mr. Main reviewed a number of problems which were addressed over the years through a variety of measures and specific programs undertaken by the City. These included the channelization of certain intersections, allowing for a separate left hand turn lane; the conversion of a number of arterial streets particularly in the lower City to one-way streets; the removal of parking on arterial streets; and the integration and co-ordination of traffic signals in order to optimize capacity of the road system.

There appeared to be little room for further improvement for Mr. McLean, in reviewing Mr. Main's evidence, concluded as follows:

> "I think it can be safely said that the City has used all the principal traffic management measures to great advantage, to attempt to make maximum use of the available capacity, particularly with the introduction of the one way street system. The co-ordination of traffic signals and the channelization of intersections, and significantly as well as the prohibitions of parking on the major routes."

The most serious traffic problem facing the lower City at the present time relates to the movement of large heavy trucks upon a number of truck routes designated for use by heavy traffic. Unfortunately, the majority of land uses abutting truck routes are residential in nature and occupied by one and two family dwellings. Many of the routes are narrow and have intersections which make it extremely difficult for trucks to turn without either blocking off much of the traffic which is travelling in the opposite direction and/or encroaching upon the sidewalks during the turning manoeuvre. Additional problems arise on a continuing basis as a result of brake failures, and the possibility of serious injury exists due to the fact that the Hamilton area has one of the highest incidences of hazardous goods movement in the Province.

The Region attempted to put forth the proposition that the building of the proposed facility would, in a very substantial way, alleviate many of the existing traffic problems of an operational nature principally by drawing the heavy vehicles away from the residential arterial streets located in the lower City. This would in turn facilitate safer movement of heavy vehicular traffic, as well, at the same time, remove or decrease the danger posed by the movement of hazardous goods along residential City streets.

There is no question in my mind that there is an urgent need to remove heavy vehicles from the streets of Hamilton, particularly from those which are ill-suited for the movement of such vehicles and which include a large component of residential use. The question that must be answered, however, is whether or not the proposed facility will accomplish that objective in a sufficiently satisfactory manner?

It is with some regret that, based on the evidence presented, I have come to the conclusion that the proposed facility will in fact do little to alleviate the existing traffic problems associated in particular with the movement of heavy vehicles.

On several occasions Mr. Turkstra introduced evidence to show that the extension of Burlington Street, by what was termed the "Perimeter Road", would in fact be a much more viable alternative for the City to pursue in order to alleviate traffic problems caused by the movement of heavy vehicles through the streets in the lower City. Most of the Bay-front industrial activity is now centered around Burlington Street, and Mr. Main conceded that the Bay-front industrial area is a prime generator, if not the prime generator, of heavy truck traffic in the City. Because improvements to Burlington Street end abruptly, the existing truck traffic is forced to continue on residential streets or through the central business district of the City. In addition, Mr. Main also conceded that the movement of truck traffic between inter-dependent industries within the industrial area will continue and would not be affected one way or the other by the construction of the Red Hill Creek Expressway. Likewise, there will continue to be trucks making local deliveries throughout the City and, again, the construction of the proposed facility will do little if anything to curtail this movement.

To the extent that heavy vehicles would be removed from residential streets and the downtown core it would, in my opinion, be better facilitated by completing the Perimeter Road. However, the nature of development in the lower City, with its high preponderance of mixed land uses, will for the most part prevent any meaningful solution to existing traffic problems.

No evidence was tendered to the Board with respect to a reliable projection of the number of trucks that would be removed from City streets. With reference to a photograph filed as Exhibit 87 depicting Cannon Street at Wentworth Street in the lower City, Counsel for the Region in argument stated, and I quote:

> It's quite true that when you look at those pictures its impossible to say that the truck in that picture won't be there if the road is built, that's obviously the case. What we are saying is that to the extent that this road can be shown in any way to remove trucks from the existing truck route, it's going to be a benefit and assistance to this community as a whole. It's true that trucks will not be removed in their entirety; it's true that many of the trucks will remain. And it's true that no matter what you do, some of them will remain, because some of them are going to have destinations in the lower City. Nonetheless, to the extent that there are any removed, it's an improvement." (Record, Volume 93, page 20,448)

I do not quarrel with the general import of that statement. I do, however, find that there is a great deal of uncertainty as to the effectiveness of this facility in alleviating the traffic problems referred to above. Without a reliable up-to-date origin and destination study, it is impossible in my view to predict the benefits that will be derived in this regard from the construction of this roadway. On the evidence before me, I am unable to conclude that the benefits attributed by the proponent to the construction of this roadway facility are both reasonably certain to occur and, more importantly, are of sufficient significance so as to offset the fundamental irreversible change in the character of the Red Hill Creek Valley which will result in the event that this project is approved.

JUSTIFICATION OF THE ROAD ON THE BASIS OF PROVIDING AN IMPETUS TO ECONOMIC DEVELOPMENT OF THE REGION

A major area of disagreement amongst the experts called on behalf of the Region and those in opposition focused upon the Region's contention that the roadway facility was needed to spur economic growth in the Region. The Region's economy experienced a slowdown in the 1970's, largely due to a decline in the steel industry and a study was undertaken by Currie, Coopers & Lybrand Ltd. for the Region in 1978 resulting in a report filed in these proceedings as Exhibit 50 setting out an industrial strategy for the Region. The report identified a number of problems and suggested a strategy which called for the development of more serviced industrial land; the expansion of the Mount Hope airport; the provision of more commercial office space in the downtown core; the provision of a convention centre, the appointment of a Director of Economic Development for the Region; and lastly, a transportation facility linking Highway 403 to the Queen Elizabeth Way.

In May of 1984 the Region retained Currie, Coopers & Lybrand Ltd. to review and update their 1978 report. Mr. John Farrow of that firm was called to give evidence on these issues at the hearing. It was subsequently learned that Mr. Farrow had also been retained by the Region to prepare the BILD application to be submitted by the Region in accordance with the suggestion made by the Minister of Transportation and Communications to the Regional Chairman at their meeting of June 28, 1984 referred to earlier. In any event, Mr. Farrow reviewed the earlier work of Currie, Coopers & Lybrand Ltd. and prepared an updated report dated September 25, 1984 which was filed in these proceedings as Exhibit 47.

Mr. Farrow and other witnesses identified a number of factors which, in their view, served as indicators of the Region's poor economic performance including, inter alia, slow population and employment growth; low rates of industrial construction and industrial land absorption; a decline in the value of building permits taken out for industrial/commercial development; and high rates of unemployment. Although there was little disagreement concerning the identification of the factors evidencing poor economic performance, there was some variance in opinion as to the degree of significance that should be placed on the prime causal factor, namely, the decline in the steel industry. Mr. Farrow concluded in his report:

> "The Region's economic performance was and continues to be weak. The outlook for the steel and related industries, upon which the regional economy is highly dependent, is not encouraging. Our 1978 Economic Development Study for Hamilton-Wentworth advocated the need to diversify the regional economy. This need still exists and is widely recognized."

Dr. Michael Webber, who had completed several studies concerning the steel industry, was of the opinion that in the future the steel companies would be forced to reduce their labour force without necessarily reducing the size of the infrastructure supporting that labour force.

It was evident during the course of the hearing that there was a great deal of economic activity centered in the central business district of Hamilton and this trend, if it continues, may well assist the Region in overcoming its economic problems.

The Region in its submissions advanced the argument that the building of this facility would encourage economic growth, particularly above the Escarpment, and enhance the viability of the Mountain Industrial Park (the largest in the region) as well as the Heritage Green Development; the Alarko Business Park, and to some extent the Limeridge Mall. By facilitating improved access to the mountain area, economic expansion or growth which had failed to occur in 1970's would, with the completion of the road facility, become more of a reality. This latter proposition upon which the Region relied as an alternative rationale for the proposed undertaking was the subject of serious debate by those in opposition.

After carefully reviewing all of the evidence on this issue, I have concluded that the approval of this application cannot be justified on the grounds that the building of the roadway facility proposed by the Region will spur significant economic growth in the Region. My conclusion is based on the following:

A great deal of evidence was led by the proponent concerning the Mountain Industrial Park, with a view toward illustrating how, in the

Region's view, its failure to develop satisfactorily was due, in large part, to the absence of adequate transportation facilities connecting it to Highway 403 and the Queen Elizabeth Way as well as the lower City. The establishment of this park was in large measure a response to what was perceived by the planners to be a lack of serviced industrial land, and which was in turn contributing to the slow economic growth throughout the Region. Similar parks were established in Ancaster (Duff's Corners), Stoney Creek, Clappenson's Corner, and in the vicinity of the airport. As mentioned earlier, there was also the Alarko development adjacent to Highway 403.

When one looks at the constituent municipalities making up the Regional Municipality of Hamilton-Wentworth, it is apparent that each of the constituent municipalities ended up with its own distinct designated area for industrial development. That, in my view, may explain the reason for the particular locations of the Region's industrial parks, as these locations in all cases cannot be justified on reasonable planning considerations. It was further acknowledged that there was a deficiency during the 1970's of serviced industrial land and, as a result, several industries and businesses in the Hamilton region moved elsewhere in order to obtain properly serviced industrial land. Although the factors underlining the decision to locate in an industrial park may differ from industry to industry, there was general agreement amongst the expert witnesses that a choice of alternate locations would encourage and enhance economic growth and therefore a surplus of serviced industrial lands should be available at all times to facilitate this choice. In fact the Region provided this choice and this is confirmed in a report filed in these proceedings as Exhibit 51 prepared by Mr. Peter Bernard, a consultant hired by the Region to assist it in the preparation of its Official Plan. Mr. Bernard states in his report at page 2.4:

> "In its Official Plan, Hamilton-Wentworth has designated five industrial business parks, the intent of which is to provide fully serviced industrial land to encourage industrial employment growth and to provide adequate choice for perspective industries."

Currie, Coopers & Lybrand Ltd., in their 1978 report, stated much the same in the following words:

> "A large, well balanced portfolio of industrial and business parkland, well located and with good highway access is the key ingredient for economic development".

According to Mr. Farrow, at the present time there are approximately 4,725 gross acres designated for industrial use located in the five industrial parks. What is lacking, according to the Region, and what has contributed to the slow rate of industrial land sales in the City and Regionally owned industrial parks is the fact that adequate highway transportation facilities do not exist to service the parks. Mr. Farrow supports this view with the following statement in the course of his giving evidence to the Board:

> "So, overall, I would say the influence of highways in terms of attracting economic development to the Region, it is because it improves the movement of goods and provides quick and convenient access."

Unfortunately, Mr. Farrow does not provide any analysis of travel times and it would have been appropriate to compare the benefits which would accrue in terms of travel time should the proposed facility be constructed. Apart from the travel times mentioned earlier by Mr. Turvey in connection with the trip from the Saltfleet community to the Bay-front industrial area, there was no inter-zonal travel times study conducted by Currie, Coopers & Lybrand Ltd., or for that matter any of the consultants retained by the Region. This type of study was in fact included in a report prepared by Miller, Odell and Paul entitled "Commercial Market Analysis, Upper James Mountain Study" filed in these proceedings as Exhibit 529 and also in a further study entitled "The Airport Industrial Business Park Location Study" filed as Exhibit 357.

Both of these latter reports made comparisons in travel time between the existing road system and a contemplated future road system and, although the said reports do not deal with the p.m. peak period, there appears to be very little difference in time saved as a result of the proposal before this Board. This is all the more significant in view of the fact that most of the traffic which would enhance economic activity would be travelling during the normal business hours of the day and not necessarily during peak hour.

There is no dispute on the evidence that at least two of the parks, the one located at Duff's Corners and the Mountain Industrial Park, have faired poorly in terms of development. The evidence indicated that to date only one industry had located at Duff's Corners and this was essentially a co-operative effort of both private industry and McMaster University. It is close to an existing expressway and not far from the proposed airport development. In addition, it is adjacent to an attractive residential community; nevertheless, it has failed to attract industry.

With respect to the Mountain Industrial Park. Mr. Farrow stated that, in his opinion, access to this park was such a serious problem, that if the proposed roadway was not built, or access improved, then the 1,500 designated industrial acres would, for all intents and purposes, become unmarketable. It was the position of those in opposition that the road will do little to enhance its development; furthermore, even if it did to some limited extent, the roadway should not be built for the primary purpose of facilitating access to an industrial park which should, on normal market considerations, not have been located there in the first place.

In support of their argument in this regard, evidence was adduced to show that there is a considerable amount of vacant serviced industrial land available at the present time, adjacent to excellent transportation facilities such as the Queen Elizabeth Way and Highway 403 and in locations more readily accessible to the large Toronto and Niagara Penninsula markets. For example, the Stoney Creek industrial park, although not fully serviced, still has room for approximately 12,000 jobs within the confines of the present serviced structure. It is located adjacent to the Queen Elizabeth Way, within a half a mile from the Bay-front industrial area and adjacent to a residential community and supporting facilities. Why has this industrial park, which does not suffer from any lack of transportation facilities, failed to develop in accordance with the expectations of those responsible for economic activity?

The Alarko Development is served by Highway 403 and offers both good access and exposure. Once again, there is ample room for further development although it is adjacent to an existing expressway.

The Region indicated that the development of the Limeridge Mall would also be enhanced by the building of the east-west arterial portion of the proposed roadway, yet evidence was tendered to show that the developers of the mall were prepared to go ahead with it whether or not the east-west arterial was built. Market studies indicated that the development was a viable proposition with or without improved transportation facilities and this in fact has turned out to be the case.

Many of the above comments do not take into account an additional important factor, namely, the practical realization that Hamilton must compete with other municipalities for its share of industrial development, particularly with areas such as Burlington, Oakville, and Mississauga, all of which are closer to the Toronto market and adjacent to existing highway transportation facilities. There is nothing, in my view, to indicate that the building of the proposed roadway will materially enhance the Region's opportunities to attract industry above the Escarpment. Mr. Farrow did not disagree with the observation that Hamilton is viewed as the place for heavy industry and that there is no expected growth in that sector in the foreseeable future.

Although it can be argued that the proposed facility will, in some limited fashion, increase the attractiveness to industry of the Mountain Industrial Park, I remain unconvinced that the proposed facility will, in any meaningful way, enhance economic growth in the Region and it cannot, in my view, be supported on that ground. On the contrary, there is considerably more evidence to suggest that economic growth will more likely be experienced in and around the central business core of Hamilton then there is to suggest any degree of substantial growth on the mountain. What growth there will be on the mountain within the planning horizon of 2001 can, in my view, be adequately accommodated by the existing infrastructure. Even Mr. Farrow conceded that the industrial park at Clappenson's Corners will attract approximately one half of the projected industrial development coming to the mountain for the balance of the century and that this would occur without the proposed roadway facility being built.

I must confess, in passing, that I did not find Mr. Farrow's evidence particularly helpful or convincing and was of the opinion that many of the conclusions reached by him could not be supported on the basis of the statistical data set forth in the reports prepared under his direction or in the light of the evidence of other witnesses.

Before leaving this issue I wish to also note that the Region did not rely upon this economic growth rationale when formulating its proposal, for I believe it to be clear from the evidence that the proposed roadway was essentially conceived as a transportation facility designed to meet predicted future traffic demand. Only after it became apparent that there were serious errors contained within the Region's population and employment projections, thus seriously weakening the principal justification for the facility, did the Region concentrate on putting forward its proposal on the basis that it would provide an impetus to economic growth. Much of the evidence put before the Board with respect to this issue was not available and was not part of the environmental assessment documents upon which the decision was made to proceed with this application.

In argument, Mr. Turkstra raised the issue as to whether or not the Board could properly consider the "economic" justification for the proposed facility if this rationale was not included in the environmental assessment document submitted to the Minister of the Environment under the provisions of Section 5 of the Environmental Assessment Act. I propose to deal with this particular issue separately when I consider the acceptability of the environmental assessment.

ENVIRONMENTAL (NATURAL) CONSIDERATIONS

Environmental Impact Assessment

The assessment with respect to the impacts to the natural environment concerned, for the most part, the impact of the north-south expressway portion of the proposed facility on the Red Hill Creek Valley. The Region relied primarily upon the evidence of Dr. Derek Coleman, an acknowledged ecologist and environmental planner. Dr. Coleman first evaluated the Red Hill Creek Valley in environmental terms as part of a study that he conducted on behalf of the Conservation Authority in 1975 in conjunction with the Region's preparation of its Official Plan. That study, filed in these proceedings as Exhibit 476, identified a number of environmentally-sensitive areas which were then designated as such in Section 5 of the Region's Official Plan. Included among a number of environmentally-sensitive areas were the Hamilton/Niagara Escarpment, the Red Hill Creek/King's Forest area and the Red Hill Creek Marsh/Van Wagner's Marsh.

It should also be noted that the Hamilton Region Conservation Authority, together with the City of Hamilton and the Ministry of Transportation and Communications, participated in the Hamilton-Wentworth Waterfront Study completed in 1974 and a report of that study, filed as Exhibit 475, identified the importance of the Red Hill Creek Valley as an irreplaceable environmental resource.

Even at that early date, this study recommended an alignment for any proposed expressway that would avoid the Valley. A further report documenting field studies completed by staff working for the Conservation Authority in 1976 further confirmed the environmental sensitivity of the Valley and both reports were referred to in the environmental assessment submission.

Subsequently Dr. Coleman was retained by the Region to evaluate the natural environment components relating to the Region's environmental assessment and its application under the Environmental Assessment Act.

It is of considerable consequence that Dr. Coleman's opinion changed radically from what it was, not only at the time that he studied the Valley on behalf of the Conservation Authority, but also between the time that he assessed the potential impacts to the Valley by the proposed facility up to the end of the Phase 3 review and when he reached final conclusions at the end of the Phase 4 study. It remained for the hearing panel to determine whether or not the change in Dr. Coleman's initial assessment of the impact on the Valley of the road facility, which was characterized by him as "very severe" to one which was ultimately characterized as "moderate", was justified.

Dr. Coleman referred to the Red Hill Creek Valley in the summary and introduction section of the "Proposed Recreation Master Plan" prepared by his firm Ecologistics Limited, (filed as Exhibit 277), in the following manner:

> "the Red Hill Creek Valley forms a physical barrier running in a north-south direction between the Niagara Escarpment and Lake Ontario. The Valley is straddled by Barton Street, Melvin Avenue, Queenston Road and King Street as well as two rail-

> way lines, the CNR and the T.H. & B. The creek crosses the Niagara Escarpment at Albion Falls beyond which it loses its impact as a physical barrier. ...
>
> The southern portion of the Red Hill Creek Valley from King Street, south to the Escarpment has varied topography, a diversified vegetation cover and a relative remoteness to the surrounding urban area. This area is ideally suited for recreation development. In this section of the study area, the roadway corridor runs adjacent to the east side of the Valley, thus minimizing its impact on the large, relatively undisturbed area of open space. Here, a large area of passive parkland could be developed to take advantage of opportunities for hiking, jogging, walking, viewing nature (i.e. Albion Falls), picnicking, bicycling and cross country skiing. The focus of this parkland in this proposal is a nature interpretive centre.
>
> Surrounding this core of passive parkland could be nodes of more active open space development including existing and proposed; sports fields, ski hills, tot lots, jogging trails, pedestrian linkages and golf courses. These activity areas would fulfill the area's recreation demands and act as a buffer between the passive parkland and adjacent urban development.
>
> In the remaining portion of the study area, north of King Street, the impact of the roadway will limit any future open space development. Recreation development is not a high priority in this section of the Valley because of its lower potential, and since the surrounding neighbourhoods have adequate open space reserves, except for the Corman and Kentley neighbourhoods immediately to the east of the valley. ..."

In the same document, Dr. Coleman continued at page 8:

> "The study area itself is mostly vacant land with the exception of a few areas of developed recreational land in the Red Hill Creek Valley.
>
> These include:
>
> King's Forest Golf Course - 180 acres
> Active Sports Fields - 76 acres
>
> The remaining 440 acres of the Red Hill Creek Valley are undeveloped except for the occasional footpath, all-terrain vehicles and dirt bike track. The active sports areas found here include baseball diamonds, tennis courts, soccer and football fields, school playgrounds and the Rosedale Arena. The remainder of the Valley with the excep-

> tion of the King's Forest Golf Course is not maintained. In some areas, particularly the upper gorge, a pleasant environment is destroyed by garbage and adjoining development. ..."

This, then, briefly describes the Valley setting and it is within this context that the impacts arising from the construction of the proposed facility must be evaluated.

Dr. Coleman set out a summary of his findings in Appendix C of the Phase 2 study filed in these proceedings as part of Exhibit 179(b), and at that time he stated as follows:

> "The analysis of existing conditions,impacts, and mitigation potential in geographic components of the alternative alignments indicated two main concerns, the Niagara Escarpment and the Red Hill Creek system. Along the Niagara Escarpment, Red Hill Creek and their associated valleys and tributaries, adverse impacts are numerous and varied. The probabilities that these impacts can be successfully mitigated at any cost are generally low. In addition to these two main systems of interacting concerns, a number of smaller areas have particular physical or biological constraints.
>
> Alternatives 1-4 were rated "high" overall for their impacts on the Niagara Escarpment and Red Hill Creek Valley. Alternative 4 also involves the Hydro right-of-way and will have the most adverse impact of the four.
>
> Alternatives 6-8 have the lowest levels of impact on the natural environment of all fifteen alternatives. Alternative 8 involves the Hydro right-of-way and is rated "medium" overall, while Alternatives 6 and 7 are rated "low".
>
> Alternative 10-12 involved both an eastern branch and the northern half of Red Creek Valley and an Escarpment crossing along Highway 20. Alternative 12 also includes the Hydro right-of-way and is rated "medium/high". Alternatives 10 and 11 are rated "medium".
>
> Alternative 13 which crosses the Niagara Escarpment at a highly visible and relatively undisturbed area is rated "medium/high" overall.

> Alternative 14 which crosses the Escarpment along the western Red Hill Creek Valley wall but otherwise involves urban areas is rated "medium" overall.
>
> Alternative 15 differs from 1-4 in the width of the alignment and in leaving the northern Valley to follow an existing road. It is rated "medium/high"overall." (emphasis added)

As mentioned earlier, the purpose of Phase 2 was to identify and evaluate, in a preliminary manner, a number of reasonable alternatives including those generated by the public in order to select viable alternatives for more detailed analysis. Phase 3 involved the detailed examination and evaluation of the selected viable major alternatives in order to recommend the preferred alternative.

The significance of employing this type of "focusing" methodology became apparent when Dr. Coleman indicated that his review of the environmental criteria after Phase 2 included only those alternatives which had not been eliminated as a result of the Phase 2 analysis. This did not, in my view, allow for a proper comparison, at least from a natural environment perspective, of those alternatives which may have resulted in a lower environmental impact rating.

As is evidenced by the environmental assessment documents based on the Phase 2 evaluation, Alternatives 2, 3, 4, 10, 11 and 15 were retained for further investigation and evaluation during Phase 3.

The Phase 3 study of impacts on the natural environment purported to examine these six alternatives closely and analyzed the various impacts resulting from construction or operation of the proposed facility. The relevant material is found in Appendix D of the Phase 3 study, filed in these proceedings as Exhibit 179(c). The summary of the impacts, with respect to the Region's proposed roadway (Alternative 2), is found on page 4 of Appendix D in the following words:

> "Relatively low impacts are produced south of the Escarpment. Some moderate impacts occur south of the Escarpment between Ottawa Street and Mount Albion Road. The Escarpment crossing at Mount Albion Road, the freeway alignment in the Valley, particularly from the Escarpment to just north of Queenston Road, and construction at the Red Hill Creek Marsh *all result in very severe impacts on the physical system, vegetation and wildlife.* Rare plant and animal species of the Red Hill Creek Valley and Marsh *will be eliminated or severely affected. Only Alternatives 3 and 4 are more deleterious to the natural environment*." (emphasis added)

It should be recalled that Alternative 3 involved the same alignment as Alternative 2; however, the east-west portion was to be a freeway as opposed to an arterial. Appendix D of the Phase 3 document described the impacts associated with Alternative 3 as follows:

> "This alternative produces more severe impacts above the Escarpment, particularly from Ottawa Street east to the City limits, then does Alternative 2. Effects at the Escarpment and through the Valley are identical to those of Alternative 2. Only Alternative 4 has more deleterious affects on the natural environment."

Alternative 4, which involved a Hydro corridor freeway was, in Dr. Coleman's opinion, the least preferrable and the impacts to the natural environment with respect to this alternative are described as follows:

> "In addition to the severe impacts described for Alternative 3, adverse effects result along the Hydro right-of-way. Wood lots and headwaters of Twenty Mile Creek are affected. This is the least acceptable of six alternatives."

Following the completion of the Phase 3 study, the study team recommended that Alternative 2 be selected for detailing in Phase 4 as it was believed that this alternative was the least destructive to the community and provided the best opportunities to achieve the desirable objectives for growth and development in the Region. Some concern for the environmental impacts which presumably would arise from the implementation of Alternative 2 was expressed by the study team, for the recommendations in the Phase 3 study contained the following sentence:

> "Opportunities exist to mitigate some of the undesirable effects of construction, particularly in the Red Hill Creek Valley".

As will be noted from the historical overview set out earlier in these reasons, the selection of Alternative 2 had been made from among fifteen major alternatives studied as well as the minor alternative and the do-nothing option and the Phase 4 study centered around the functional planning for the preferred alternative. As stated in the Phase 4 report filed in these proceedings as Exhibit 179(d), the scope of the work during this phase included, inter alia:

> "The completion of detailed investigations to indicate measures to reinforce the positive affects of implementation and to reduce the negative affects on the social/cultural and natural environment.
>
> These investigations included an estensive noise impact analysis, the preparation of a possible Recreational Master Plan for the Red Hill Creek Valley, and a detailed natural environmental impact analysis."

As a result of the Phase 4 Study and presumably on the basis of the proposed Recreation Master Plan and design modifications, Dr. Coleman was prepared to change his opinion from that previously held by him throughout the process up to this point and was now able to render a much revised opinion, summarized as follows in the Phase 4 report

> "Based on the extensive analyses carried out in Phase 3, adjustments in the roadway alignment were carried out to minimize the disturbance of the terrestial and aquatic ecosytems. These adjustments principally involved avoidance of major wood lots or their significant fragmentation.
>
> Fourteen areas of concern relative to the natural environment were identified at the micro scale. As a result of the interactive process, five of the features have been completely avoided. Of the remaining areas, the impact on all but two of the features *is considered moderate and capable of successful mitigation.*
>
> At the upper Ottawa Street landfill site, the roadway alignment will cause fragmentation of the existing wood lot. A minor stream diversion is planned for the Red Hill Creek in this location. As the wildlife is principally avian and urban-tolerant, *the impact of the roadway construction is considered moderate.*
>
> *The impact on the Red Hill Creek Marsh will be severe and difficult to mitigate.* In assessing the significance, the impact must be viewed in relation to the existence and planned expansion of the Queen Elizabeth Way between Burlington Street and Highway 20. The marsh area is presently highly disturbed as a result of being adjacent to the Queen Elizabeth Way and the past construction of the H.E.T.C. transmission towers and the CNR spur line to Lang's Foods." (emphasis added)

It became evident at the Hearing that construction of the proposed facility in the Red Hill Creek Valley would require a channelization of the Red Hill Creek in the vicinity of King Street, Queenston Road, Melvin Avenue, and Barton Street. These modifications would necessitate the consent of the Conservation Authority under the *Conservation Authorities Act*.

Mr. John Coates, Assistant General Manager of the Hamilton Region Conservation Authority and Flood Control Coordinator, testified that the construction of the roadway within the narrow part of the Valley immediately adjacent to a water course would require a channel of roughly seventy feet wide in addition to the width of the highway itself. In view of the narrow physical constraints of the Valley itself north of Queenston Road, there is little doubt that what is now open space will be substantially, if not entirely, covered by concrete. The evidence of Mr. Coates stood for the most part uncontradicted at this hearing.

I do not intend to dwell at length with the specific reasons given by Dr. Coleman for his remarkable change of opinion, for there is little doubt in my mind that he continued to view the probable impacts of the roadway passing through the Red Hill Creek Valley to be serious and I might add, to be avoided, if at all possible. Dr. Coleman's continuing concern with respect to the deleterious impacts that this facility would have on the natural environment, particularly within the Red Hill Creek Valley, was underlined in his frank responses to questions put to him by Mr. Turkstra at this hearing.

Furthermore, Dr. Coleman, in response to questions put to him by Mr. Steven Stepinac, Counsel for the Niagara Escarpment Commission, admitted that he would "want to avoid the Valley if an alternative that meets other needs was available". (Record, Volume 40, page 8,695)

EXISTING LANDFILL SITES

The witness called in response to Dr. Coleman's evidence by those in opposition was Dr. R.S. Dorney. This witness expressed concern over the fact that, in his opinion, two existing landfill sites were not properly identified in the environmental assessment documents and, consequently, the environmental impacts resulting from the roadway facility passing close to or over a closed landfill site were not adequately assessed.

The landfill sites in question were referred to as the Upper Ottawa Street landfill which is located in the area where the East-West arterial joins with the North-South expressway, and the Brampton Street landfill located in the vicinity of the proposed interchange connecting the North-South Expressway to the Queen Elizabeth Way. Evidence was adduced to indicate that both landfill sites had been closed within the preceding twenty-five years and, accordingly, would require a certificate from the Ministry of the Environment prior to any construction activity taking place.

For reasons which I fail to understand, little attention was given in this assessment to an investigation of any potential problems relative to the said landfill sites and it appears that the Ministry of the Environment was either unaware of the location of these landfill sites relative to the proposed roadway or, alternatively, was unconcerned with respect to any adverse environmental impact which might arise from the construction of the roadway.

In view of the fact that the Ministry of the Environment was a party to these proceedings, one would have expected that the Ministry would have been prepared to comment on this issue, particularly with reference to the

Upper Ottawa Street landfill site. This site was the subject of an intensive study which generated a report entitled the "Interim Report of the Investigation of the Upper Ottawa Street Landfill Site by the Upper Ottawa Street Landfill Street Committee" (dated May 31, 1983) and filed in these proceedings as Exhibit 295.

Dr. Coleman testified that he was unable to give an opinion that construction of the road would not be affected by leachate from the Upper Ottawa Street landfill site. Although he was aware that the Province of Ontario had constituted a study committee for this site in 1982, he nevertheless did not find it necessary to talk to the Landfill Study Committee at the time that he updated his own report in 1983. Dr. Coleman admitted, however, that had he read the Committee's report in 1979, *he would have recommended* to Delcan that a further study be conducted to investigate any possible relationship between the landfill site and the construction of the proposed facility. (Record, Volume 48, page 8,570)

Surely it is incumbent upon a proponent, and indeed the Ministry of the Environment, to investigate and adequately assess the impacts on a proposed roadway of a landfill site situated in close proximity thereto, and which contains hazardous chemical waste *prior* to the completion of the environmental assessment leading to the choice of a particular alignment.

This issue was raised solely by those in opposition and, as a result, the Region felt it necessary to engage a hydrogeologist to review the existing documentation concerning the Upper Ottawa Street Landfill Site and to present his findings to the Board at the hearing. Of perhaps more importance, however, was the fact that during the course of the hearing, the final report of the Upper Ottawa Street Landfill Committee dated

February 27, 1985 was completed and filed with the Board as Exhibit 452 although it had not yet been approved for general release. I am satisfied, on the basis of the information contained in Exhibit 452 and the evidence of the Region's hydrogeologist, Mr. Douglas Jagger, that any adverse impacts resulting from the close proximity of this landfill site to the proposed roadway can be adequately controlled, and it will be necessary to rely upon the Ministry of the Environment to impose the appropriate conditions relative to final design of the facility at the time the requisite certificate is issued and prior to any construction taking place. However, this conclusion does not in any way excuse the Region's apparent neglect in investigating potentially serious adverse impacts at a time prior to the completion of the route selection process.

The sole reference to the Brampton Street Landfill contained in the environmental assessment documents appears at page 50 of Exhibit 179(c). The reference is as follows:

> "The Brampton Street Landfill site adds leachate to the Creek, but existing data does not allow analysis of its effects on water quality. ...
>
> Closure of the Ottawa Street or Brampton Street fill sites will not greatly change water quality in the lower section of Red Hill Creek. Sewage inputs are the primary problem and will remain so until storm and sanitary sewers are separated." (emphasis added)

Once again, the Ministry of the Environment neglected to comment on the possible impact of roadway construction on this landfill site, or vice versa, and a Ministry witness did not appear at the hearing to deal with this issue. It is of some concern to me that in reading the environmental assessment submission the public and reviewing agencies would have been substantially unaware of the possible environmental risks associated with these landfill sites, particularly as they relate to possible further impairment of the Red Hill Creek.

In response to this issue, again brought forward by the opposition at the hearing, the Region called a soil expert to address the concerns raised. It is my view, once again that this matter should have been properly assessed by the proponent at an earlier stage in the route selection process.

Trans-Northern Pipeline

A further issue arose at the hearing as a result of testimony by Dr. Robert S. Dorney relating to the possible relocation of a sixteen inch diameter high pressure pipeline carrying petroleum products across the Escarpment to refineries located in the Clarkson, Ontario area.

Dr. Dorney indicated that the plans showing the alignment of the proposed roadway appeared to place the roadway directly over the pipeline for some distance and was concerned that the cost of the proposed roadway might escalate if the line had to be shut down in order to facilitate a possible relocation. In addition, since it was necessary for the roadway to traverse the pipeline in at least one location, it would be necessary to obtain the approval of the National Energy Board prior to proceeding with construction.

Once again, it is apparent that any potential impacts resulting from the proposed alignment in close proximity to this pipeline were not assessed in any appropriate fashion prior to the preferred alternative being chosen. It was only demonstrated by means of correspondence dated February, 1985 that any additional cost relative to relocation of this pipeline would be borne by Trans-Northern Pipeline rather than the Region itself. Little consideration, if any, was given to whether or not any potential relocation would require further blasting and/or damage to the Escarpment.

Implementation of the Proposed Recreation Master Plan

I do not intend to review in detail the proposed Recreation Master Plan, however, I do wish to comment on some aspects of this proposal, particularly concerning its eventual implementation in the event of approval of the Region's application.

As mentioned earlier, Dr. Coleman viewed the implementation of the proposed Recreation Master Plan as essential in order to mitigate the deleterious effects of the proposed road facility upon the Red Hill Creek Valley. It was brought before the Board for the specific purpose of illustrating and identifying the potential recreational uses that could be achieved within the open spaces of the Red Hill Creek Valley, anticipating the introduction of the proposed six lane Red Hill Creek Expressway that will traverse a portion of the Valley. The following statement is contained on page 2 of the Plan:

> This proposed Master Plan provides a comprehensive framework for recreation development in the Red Hill Creek Valley while taking into account the spacial, visual, noise and physical impact of the proposed roadway. Mitigating measures are suggested to minimize the impact of the roadway on surrounding development, both existing and proposed."

Without implementation of this plan, one is left with the clear impression that Dr. Coleman would not have had any hesitation in rejecting the proposed facility outright on environmental grounds. In the course of being cross-examined by Counsel for the Niagara Escarpment Commission he states:

> Yes, Sir, I believe that (Recreation Master Plan) is an important part of approval of the road, and my own assessment of impacts assumed that the Master Plan would be implemented as proposed." (emphases added) (Record, Volume 41, page 8,699E)

There is evidence to indicate that the public, and for that matter elected officials reviewing the documentation which included the Recreation Master Plan, were led to believe that the impacts resulting from the roadway facility would be sufficiently mitigated by implementation of the Master Plan so as to render the proposed alignment acceptable.

Although the Conservation Authority remained steadfastly opposed to any Valley route, the Region suggested that the Conservation Authority, by entering into discussions with the City concerning recreational uses in and about the King's Forest area, somehow weakened its opposition. Mr. Ben Vanderbrug, Manager of the Hamilton Region Conservation Authority, testified at the hearing and indicated that Dr. Coleman's original work in 1976 wherein he identified the Valley as an environmentally sensitive area reaffirmed the Conservation Authority's conviction that an alternative route for the expressway other than the Valley should be found. (Record, Volume 66, page 13,883)

Mr. Vanderbrug joined the Working Committee in order to be in a position to put forward the natural environment perspective and at his suggestion was later joined in this regard by Mr. C. Louis of the Niagara Escarpment Commission. Both Mr. Louis and Mr. Vanderbrug opposed the selection of Alternative 2 and Mr. Vanderbrug wrote a minority report, dated June 5, 1979 outlining his objection to the Valley route which was endorsed by the Executive Committee of the Conservation Authority.

Although Mr. Vanderbrug stated that if the proposed facility was in fact going to be constructed, then the Conservation Authority might well become involved in the implementation of any mitigative plan in order to assist in what he described as a "bad situation" he declined, however, to become involved in the preparation of the Recreation Plan as it was felt that this might prejudice the Authority's opposition to the Region's application before the Board.

Mr. George McKibbon, a planner with expertise in environmental planning, testified on behalf of the Niagara Escarpment Commission. He indicated that the Commission would prefer that the expressway not be located in the Red Hill Creek Valley. In the event that it was approved in the location proposed by the Region, then it should only be approved on the basis of certain conditions being attached to any such approval. (Record, Volume 64, page 13,444)

Several witnesses testified that the implementation of the Master Plan should be required as a specific condition of approval. This was essentially the position taken by Dr. Coleman, Dr. Norman Pearson and Mr. Heinz Schweinbenz, called as witnesses by the Region, and also Mr. McKibbon, Mr. Vanderbrug and Dr. Dorney called by those in opposition. The question of implementation, however, evolved into a serious issue because of the fact that the Valley lies wholly within the jurisdiction of the City of Hamilton and yet the City, for some inexplicable reason, was not a party to these proceedings.

Although Mr. Schweinbenz indicated that some negotiations had taken place between the Region and the City with respect to the implementation of the Master Plan, no agreement had been reached and no representative of the City testified to the effect that the City had any desire whatsoever in entering into a formal agreement with the Region concerning the implementation of this Recreation Plan. It remains sheer speculation as to whether or not the City, in view of its past opposition to the Valley alignment, would in fact cooperate with the Region. In any event it is beyond the jurisdiction of the Board to impose a condition upon a third party who was not a party to these proceedings. Moreover, I find it inexcusable on the part of the Region to come before this Board for approval to proceed with the construction of the proposed facility on the basis that a Recreation Master Plan, designed to mitigate admittedly serious environmental impacts be implemented and yet, at the same time, provide no evidence whatsoever that the local municipality having jurisdiction over the Valley would be prepared to implement said Plan.

Surely one could reasonably expect the Region to have fully explored the implementation aspects of this Plan upon which they fundamentally rely to mitigate the negative environmental impacts of their proposal, before making application to the Board for approval. In this regard, I find it to be equally inexcusable that the Recreation Master Plan was put forward to the public and elected council members on the basis that that Plan, or one of similar effect, would be implemented as part of the Region's overall proposal with no assurance whatsoever that such would in fact be the case.

In argument, Mr. Stepinac suggested that if the City refused to cooperate in implementing the Recreation Master Plan, the Region could, under Section 155 of the Regional Municipality of Hamilton-Wentworth Act, acquire the Valley lands and thus, on its own, implement the Recreation Master Plan. It is clear, however, that the Region has no recreation staff, water management staff, forestry management staff, or other technical personnel capable of implementing the Plan and, in my view, it is neither a viable nor desirable alternative. Mr. Lederer stated in his argument, and I quote:

> "As stated in the submission p.p. 6-48, the development of the Recreation Master Plan was undertaken to demonstrate the viability of maintaining and expanding the recreational use of the Valley in co-existence with the proposed roadway. As the jurisdictional responsibility for the development of parks and recreation facilities within the Red Hill Creek Valley rests with the City of Hamilton, the Region is not in a position to make a commitment related to the implementation of the Plan. However, the Region is fully supportive of the expanding of recreational use in this area and is prepared to co-ordinate the staging of roadway construction in accordance with the City's proposals." (emphasis added)

He goes on to state:

> "We want to see this, we think it is a good thing but, with respect, it is not part of our jurisdiction." (emphasis added)
>
> "To do what Mr. Stepinac suggests, in my respectful submission, breaks down the notion of the way Regional Government has been formed in this community and the problem is that parks are the responsibility of the City, or that they can be under certain circumstances moved over to the Conservation Authority. For the Region to do this would mean the formation of a Regional Parks Department and all that entails and all the money that entails, and that is another factor which must be considered." ...
>
> "What we would like to see you do is to impose a condition whereby it remains designated within the Regional Official Plan as open space and there be an absolute requirement for a hearing if there should ever be any change with respect to that." (Record, Volume 100, page 21,953)

It is clear, from my understanding of the evidence, that the Region, although recognizing the jurisdictional problems surrounding the implementation of the proposed Recreation Master Plan, nevertheless invited the Board to approve its application in the hope that the City would agree to its implementation and if not, the approval to proceed would nevertheless stand. This position does not, in my opinion, go very far in meeting the publics' expectations of how the mitigation of deleterious environmental impacts will in fact be accomplished and does much to exacerbate the suspicions held already by many of those in opposition to the Region's proposal.

Related Environmental Issues

Several witnesses testified at the hearing to the effect that the Valley at the present time was full of debris, and at the northern end, resembled little more than an open sewer. There is no doubt from the evidence presented at the hearing that the Valley suffers from a notable lack of attention on the part of the local authority responsible for its upkeep, and has deteriorated over the years as a result thereof.

The Region sought to demonstrate that the building of the proposed facility, particularly coupled with the implementation of the Recreation Master Plan, would precipitate a general improvement in the quality of the remaining open space and facilitate a largely improved recreational use of this open space over what exists at the present time.

That proposition, in my view, cannot be put forward as a way of rectifying the local authority's attitude of benign neglect when the alternative is to fundamentally alter the character of that open space. Just because the City has in the past refrained from taking the necessary steps to clean up and enhance the Valley in its natural state is no reason to conclude that the Valley's restoration will somehow be better accomplished by the construction of an expressway. It is not unreasonable to suggest that perhaps the City consciously refrained from expending monies on the Valley lands until such time as it was known whether or not the North-South expressway would ultimately be constructed in that location.

In the event that the Region's application is denied, there is nothing to prevent the City from undertaking a comprehensive rehabilitation of the Valley and thus enhancing its attractiveness as a natural open space.

Considerable evidence was adduced at the hearing by the Region to support its contention that the Valley lands could, as a result of measures proposed in the Recreation Master Plan, co-exist with the roadway facility and both passive and active recreational uses could continue, notwithstanding that the roadway would in effect bisect the Valley throughout its entire length. Comparison was made with the Don Valley Parkway in the Metropolitan Toronto area and reference was also made to existing roads which presently cross the Valley. I readily acknowledge that it is indeed possible to carry on with passive recreational pursuits such as hiking, walking, bicycling and cross-country skiing notwithstanding that these activities are to be carried on adjacent to a six lane expressway, however, it defies all reasonable logic to suggest that the pleasures derived from such activities will not be materially and adversely affected.

The very essence of a natural, green, open space located in the heart of a heavily industrialized urban area is to provide for those residents who wish to take advantage of it, a respite from the noise, pollution, and general chaos associated with urban environments. The Red Hill Creek

Valley provides the only natural buffer in the east end of the City of Hamilton and, even in its present state of neglect, is enjoyed by many residents who have, over the many years during which this expressway has been under consideration, fought to preserve the Valley in its natural state for generations to come. Comparisons with other facilities such as the Don Valley Parkway are not particularly helpful for the simple reason that at the time they were constructed there was no requirement for an environmental assessment as is the case under the present *Environmental Assessment Act*.

As indicated earlier, the Niagara Escarpment Commission was a party to these proceedings and, in general, was opposed to the Region's application. The Commission's involvement arose as a result of its statutory mandate which is defined in section 2 of the *Niagara Escarpment Planning and Development Act* as follows:

> "The purpose of this Act is to provide for the maintenance of the Niagara Escarpment and land in its vicinity substantially as a *continuous natural environment*, and to insure only such development occurs as is *compatible* with that natural evironment." (emphasis added)

The Commission was of the opinion that the proposed roadway facility located within the Redhill Creek Valley was *incompatible* with that natural environment and accordingly wanted the facility to be located elsewhere.

In the event, however, that the Board approved the Region's application, the Commission suggested, in addition to the implementation of the proposed Recreation Master Plan, the inclusion of further conditions related to stormwater runoff and erosion considerations; the approval by the Commission of a detailed grading plan; and the approval by the Commission of a detailed tree preservation and planting plan.

Inasmuch as the Joint Board, under the provisions of the Consolidated Hearings Act, stands in the place of either the Commission or the Minister, with respect to the issuance of a development permit under the provisions of Sections 25 and 26 of the Act, it is the Board's duty to determine whether or not the proposed facility is in conformity with the provisions of the Niagara Escarpment Planning and Development Act.

On the evidence before me, I have reached the conclusion that the siting of a six-lane expressway bisecting the Redhill Creek Valley throughout most of its length, inhibits the preservation of this area as a continuous natural environment and is in fact incompatibile with that natural environment. The suggested mitigating factors referred to by witnesses testifying on behalf of the Region do not, in my view, alter my conclusion herein. Accordingly, I would refuse issuance of the required development permit.

The issues of noise and air pollution attributable to the proposed facility were dealt with at the hearing by several witnesses called by both the Region and those in opposition. Although these issues may be judged to be of some importance, I do not feel, in the context of this particular hearing, that it would serve any purpose in reviewing or commenting upon the voluminous amount of evidence adduced on these issues.

With any highway facility there will be noise generated and increased levels of air pollution. This is simply a fact of life and these negative impacts must be weighed against whatever benefits are to be derived from the transportation facility. Since I have reached the overall conclusion that the Region's application should be rejected, I find it unnecessary to deal specifically with the various mitigation measures proposed to alleviate the impacts with respect to noise and air pollution.

Conclusions With Respect to Impacts Upon the Natural Environment

After carefully considering all the evidence presented with respect to the probable impacts upon the natural environment resulting from the construction of the proposed facility, I have reached the conclusion that irrespective of the issue of need, the proposed North-South Expressway should not be located within the Red Hill Creek Valley. The evidence to support this conclusion is, in my view, overwhelming and is founded to a considerable degree upon the work undertaken by the Region's own ecologist, Dr. Derek Coleman.

This conclusion is further reinforced by Dr. Coleman's response to a question put to him by me asking whether he could support another decision had they chosen a different route, particularly one that did not use the Valley. He replied as follows:

> "Yes, sir, from my particular feeling on this project there are still alternatives with less environmental impacts, which would be preferred by me." (emphasis added) (Record, Volume 42, page 8,742)

I sympathize with the predicament within which Dr. Coleman found himself, for he faced a monumental and, in my view, impossible task in attempting to lessen the impact of his own analysis when it became apparent that the Valley alignment was to be the selected route. The Region was obviously concerned with the prospect of approaching a hearing held, *inter alia*, under the provisions of the *Environmental Assessment Act* with its senior consultant in charge of assessing the impacts of the proposed facility upon the natural environment rating those impacts to be "very severe".

Although Dr. Coleman changed his opinion and ultimately rated the impacts as "low" or "moderate" this change cannot, in my opinion, be supported on the basis of the factual evidence before me. I find that, notwithstanding the possible implementation of the proposed Recreation Master Plan (which in itself raises a great deal of uncertainty), the negative impacts to this open space, caused by the construction of the proposed facility, will continue to be severe.

This is not the least bit surprising in view of the fact that the Valley has been identified by Dr. Coleman as one of the most environmentally sensitive areas in the Region and designated as such in the Region's Official Plan.

Both the Hamilton Region Conservation Authority and the Niagara Escarpment Commission remain opposed to the Valley route and all of the impacts have not, as of this date, been fully assessed.

Approval to proceed by the Joint Board will still be subject to the approvals required under the Conservation Authority Act with respect to "cut and fill" permits; the approval of the National Energy Board with respect to the aforementioned pipeline; and the approval of the Ministry of the Environment with respect to construction in the vicinity of the Upper Ottawa Street and Brampton Street landfill sites. By the Region's own admission, even if this Board had jurisdiction to deal with these further approvals, the Board would not have the necessary information upon which to base its decision for much of the data would only be available at the final design stage.

It is obvious to me from the evidence that construction of this road facility would result in a fundamental irreversible change in the character of the Red Hill Creek Valley and, as stated earlier, this can only be justified in circumstances where the need for such facility has been established and reasonably certain to occur. I have found that no such need has been demonstrated and, accordingly, the Red Hill Creek Valley should be left in its natural state.

THE LIMERIDGE ROAD PROPERTY OWNERS INTEREST GROUP INC.

Mr. Turkstra also represented the Limeridge Road Property Owners Interest Group Inc. which comprises a group of home owners located primarily in the Upper James Street/Limeridge Road area above the Escarpment. The concerns of these residents primarily involved the fact that, as a result of their residential properties being located within the areas designated on the Region's Official Plan as being reserved for future interchanges to be associated with the East-West arterial facility (in the event that this facility was to be upgraded to a freeway at some future date beyond the life of the present planning horizon), the value of their properties had decreased substantially and in many cases were unsaleable under a residential zoning.

It is important to note that the staging of construction of the proposed facility, referred to in Exhibit 58, indicated that a four lane urban arterial would be constructed between Upper Gage Avenue and Highway

403 as the last stage, which was not scheduled to occur until the mid 1990's.

The residents caught with their homes located within the designated interchanges sought to have their properties rezoned commercial in order to facilitate their sale at prevailing commercial market levels. When the City refused to rezone their properties commercial, the residents took their case to the Ontario Municipal Board (OMB), and that Board allowed the rezoning. In its decision the OMB stated as follows:

> "The Board has no quarrel with the combined municipal intent to build an arterial roadway at this location and the desire to do everything to implement that. However, the method of implementation whereby landowners of thirty to forty years standing are left wondering when, if ever, their lands will be taken by the municipality and compensation determined is unfair in the extreme. The City, by its own evidence, has a relatively unchanged survey plan showing the roadway location since 1969. The City has acquired some lands but not these. The road plans over some twenty years have hit a variety of deferrals or changes requiring rethinking and replanning thus deferring the ultimate day of reckoning. The plans even now are relatively vague as to timing and, in any event are many years in the future for most of the applicants. In the meantime, the applicants have no market for their lands because of the uncertainty of the road implementation. In these circumstances there is no justification for what is in effect a land freeze." (emphasis added)

Further, in its decision the OMB stated:

> "These hearings and the many motions before the Board involved therein have been most costly to the applicants on an issue wherein the Board does not believe that the municipalities have acted reasonably, particularly the Region. Costs have been requested by the applicants. The Board considers the sum of $5,000 to be proper costs for matter taking some seven days over three separate stages of the hearing and separate motions. The costs are to be payable to the applicants and borne equally by the City of Hamilton and the Region of Hamilton-Wentworth." (emphasis added)

The decision of the Ontario Municipal Board, dated August 12, 1982, was appealed to Cabinet where it was reversed on the merits. The decision of the Board as to costs was confirmed.

Although I am of the opinion that the decision of Cabinet is res judicata with respect to the rezoning application before the Ontario Municipal Board, I nevertheless feel compelled to comment upon this issue as it illustrates what may only be termed a shocking lack of consideration and adherence to the basic principles of fairness on the part of the Region toward a group of its citizens.

A number of the residents owning homes located within the interchanges testified at the hearing and their evidence is supported by other documentation filed in these proceedings. For example, as mentioned earlier in these reasons, the Board of Control for the City of Hamilton in a submission to the Minister of Transportation and Communications dated January, 1972 (filed as part of Exhibit 590) acknowledged that property owners of some thirty acres of land were presently requesting that the City either purchase the lands or allow rezoning to permit development. The City, however, refused the rezonings even though it was uncertain whether the Ontario Municipal Board would uphold the restrictions on the grounds that the City could not indicate that it intended to acquire the land within a reasonable period of time.

The minutes of the Planning and Development Committee meeting held March 26, 1980, filed as Exhibit 575(g), made reference to certain zoning change applications brought by certain residents owning property located within the interchanges. The minutes referred to a report of the Planning Department dated March 17, 1980 which included the following comments:

> "The proposed change in zoning would require an amendment to the Official Plan to redesignate in part the lands from "residential" to a "commercial" land use designation.
>
> Furthermore, the lands in question are almost entirely within the right-of-way for the Mountain freeway. In this regard, even though City Council has decided to downgrade the proposed freeway to a major arterial road at this time, the right-of-way is to be reserved to provide for a freeway at a future date.
>
> On the basis of the foregoing, the Department cannot support the requested change in zoning."
> ...

The minutes then go on to recite:

> "In discussion, Alderman Merling questioned why property owners should be made to hold land designated for a future Regional road. On the other hand, he did not feel that the application could be dealt with in the absence of specific development plans or a Neighbourhood Plan. Alderman McCullouch suggested that it was dangerous to give the Freeway Alignment as a reason for refusing development, and that the reasons should be confined to Planning considerations including the alternative uses which might be made of the land. (emphasis added)
>
> It was decided that staff be requested to proceed with the preparation of a Neighbourhood Plan and that the application be refused as premature."

It is patently obvious that these residents now live in an area which is no longer suitable for residential use. They are being kept in a state of limbo as the result of a land freeze arbitrarily imposed by the Region in a vain attempt to minimize the cost of acquisition should these properties, by some remote chance, be required at some point in time at least fifteen years away in the future.

To perpetuate this type of uncertainty and unfairness upon these residents, most of whom are elderly and retired, is unconscionable and should not be condoned.

One of the matters before the Board for its consideration is an amendment to the Official Plan for the Hamilton-Wentworth Planning Area, which would have the effect of deleting references to the proposed East-West, North-South transportation facility from the said Plan. In view of the fact that, based on the evidence before me, I would refuse the Region's application to proceed with its undertaking, I would also agree to give approval to an amendment of the Official Plan referred to the Joint Board as requested by the Save the Valley Committee which would in turn have the desired effect of freeing these properties from the constraints placed upon them by being located within the designated future interchanges. The affected residents would thereupon be at liberty to make a further application for rezoning or attempt to dispose of their properties under the present zoning designations.

ACCEPTANCE OF THE ENVIRONMENTAL ASSESSMENT

An important question was raised by Mr. Turkstra in argument concerning the scope of the environmental assessment process which, in my view, requires some clarification.

Mr. Turkstra put forward the proposition that the environmental assessment consists of only that documentation submitted pursuant to Section 5(1) of the Environmental Assessment Act which must in turn address, in some fashion, all of the specific criteria referred to in subsection 3 of Section 5. These criteria include the following:

(a) a description of the purpose of the undertaking;

(b) a description of any statement of the rationale for,

  (i) the undertaking

  (ii) the alternative methods of carrying out the undertaking, and

  (iii) the alternatives to the undertaking;

(c) a description of,

  (i) the environment that will be affected or that might reasonably be expected to be affected, directly or indirectly,

  (ii) the effects that will be caused or that might reasonably be expected to be caused to the environment, and

  (iii) the actions necessary or that may reasonably be expected to be necessary to prevent, change, mitigate or remedy the effects upon or the effects that might reasonably be expected upon the environment,

by the undertaking, the alternative methods of carrying out the undertaking and the alternatives to the undertaking; and

(d) an evaluation of the advantages and disadvantages to the environment of the undertaking, the alternative methods of carrying out the undertaking and the alternatives to the undertaking.

Under the Act, there are two distinct routes contemplated leading to the acceptance of the undertaking and approval to proceed.

In all cases, before accepting the environmental assessment submitted by the proponent, the Minister causes a review of the assessment to be prepared (commonly referred to as the "government review") which together with the environmental assessment is then published or otherwise made available to the public (Section 7). The public then has thirty days or some longer specified period within which to make written submissions to the Minister with respect to the undertaking, the environmental assessment and the review thereof; and may, by written notice to the Minister, require a hearing by the Environmental Assessment Board with respect to the undertaking, the environmental assessment and the review thereof.

Without going into detail, it may be said that in cases where a hearing is not required, the Minister has the responsibility of either accepting the environmental assessment and then determining whether approval to proceed with the undertaking should or should not be given, or conversely, determining that the environmental assessment does not comply with the Act or the regulations and is inconclusive or is otherwise unsatisfactory to enable a decision to be made with respect to approval to proceed.

In the latter case, the Minister shall give notice that he proposes to amend the environmental assessment together with written reasons therefor. It should be noted that under Section 8 of the Act the Minister, in determining whether to accept or to amend and accept an environmental assessment shall consider; the purpose of the Act; the environmental assessment submitted to him, the review thereof; the written submissions, if any, made with respect thereto; any reports required and submitted to him, and any further review that the Minister has caused to be prepared.

It is therefore specified in the legislation that the Minister must take into account specific criteria in determining whether or not the environmental assessment is acceptable.

It is also of some importance to note that the government review does not appear to be mandatory with respect to all documentation submitted to the Minister, for Section 11(4), referring to further reports required by the Minister pursuant to Section 11(2), specifies that these further reports shall be incorporated as part of the environmental assessment, and the review thereof that the Minister caused to be prepared may (not shall) be revised accordingly.

In cases, however, where a hearing is required before the Environmental Assessment Board (and by extension before the Joint Board) the Board shall hold a hearing with respect to:

> the acceptance or amendment and acceptance of the environmental assessment;
>
> whether approval to proceed with the undertaking in respect of which the assessment was submitted should or should not be given; and
>
> whether the approval referred to above should be given subject to terms and conditions and, if so, the provisions of such terms and conditions, ...

and shall decide the matters referred to it in the notice of the Minister. (Sections 12(2), (3)).

It should be noted that under Section 13 of the Act, the Minister may accept the environmental assessment prior to referring it to the Board for a decision on whether approval to proceed should or should not be given and, if so, with or without conditions.

Where the Minister directs the Board to also make a decision with respect to the acceptability of the assessment, the Board is not bound by any statutory criteria, as is the Minister under Section 8 referred to above, in determining whether or not the environmental assessment is or is not acceptable.

These distinctions must be taken into account when considering Mr. Turkstra's submission that the environmental assessment consists of only that documentation submitted to the Minister pursuant to Section 5(1). He bases his argument for this proposition upon the definition of the term "environmental assessment" as set out in Section 1(d) of the Act. That definition is set out in the Act as follows:

> S.1(d) ""environmental assessment", when used in relation to an undertaking, means an environmental assessment submitted pursuant to Subsection 5(1)."

The thrust of Mr. Turkstra's argument is simply that the proponent cannot, at the hearing stage, substitute a rationale upon which his undertaking is based, or introduce new evidence that was not included or referred to within the environmental assessment documentation submitted to the Minister pursuant to Section 5(1).

The reason for this, in Mr. Turkstra's view, is that this new material does not form part of the environmental assessment in accordance with the definition of that term as set out in the Act and, accordingly, would neither be subject to the government review nor public scrutiny during the thirty day period provided for in Section 7(2) of the Act.

As mentioned earlier, however, even in cases where the Minister makes the determination on the acceptability of the environmental assessment, all of the documentation comprising the environmental assessment may not be subject to the government review.

The issues before the Board require a determination as to what exactly constitutes the "environmental assessment" in the context of a public hearing. I have carefully considered the arguments on this issue put forward by both Mr. Turkstra and Mr. Lederer and have spent more than a little time examining the provisions of the Act in arriving at the following conclusions:

In cases where a hearing is held it would, in my view, make no sense whatsoever to have the evidence adduced at a hearing confined to only those matters raised in the environmental assessment documentation submitted pursuant to Section 5(1). In practice there may be several months or even years which have elapsed between the date that the environmental assessment was submitted to the Minister and the date that a hearing is actually held, and it is conceivable, and indeed likely, that a considerable amount of additional data, studies or other pertinent information will be generated during the intervening period. The fact that this additional information has not undergone the review by either government agencies or the public does not prevent it from being reviewed at the hearing itself. To hold otherwise would negate to a large extent the necessity of holding a hearing and would not allow for the decision-maker to be in possession of the "best" evidence upon which to formulate a decision.

I firmly believe that the environmental assessment process must be viewed as evolutionary in nature. Underlying the Act is a concept of reasonableness and this concept must be carried through to the hearing process. The proponent of an undertaking is not, and cannot be a mind-reader and necessarily anticipate each and every issue that might be raised by those in opposition at the hearing.

The obligation of the proponent to fulfill the statutory requirements of Section 5(3), particularly when dealing with the question of alternatives, must be based to some extent upon what the proponent believes to be feasible alternatives and may not include, in all cases, all possible alternatives. Failure to address every alternative conjured up by those in opposition does not necessarily signify non-compliance with the Act and I would submit that the appropriate test of adequacy should be that of "reasonable and substantial compliance" in furtherance of the stated purpose of the legislation.

In the event that an issue is raised at the hearing that was not covered in the environmental assessment documentation, the proponent should be at liberty to address this issue by calling evidence on it which is then subject to cross-examination etc. in the normal fashion.

One must remember that there are no definitive guidelines setting out the precise requirements of the environmental assessment documentation nor are there any formal pleadings as are found in the court system limiting the scope of the evidence to be adduced at the hearing and, consequently, a certain degree of flexibility must be permitted if the environmental assessment process is to remain viable.

I support my position to some extent on the fact that the legislature has not seen fit to place any constraints upon the Board concerning what it may or may not consider at a hearing in reaching its determination as to the acceptance or amendment and acceptance of the environmental assessment.

I am therefore of the opinion that matters pertaining to the environmental assessment, included under the specific heads which are set out in Section 5(3) of the Act, may be addressed either in the documentation filed with the Minister or in documentation or other oral evidence admitted by the Board during the course of the hearing itself.

I must confess that I am troubled by the apparently restrictive scope that might be attributed to the definition of the term "environmental assessment" as set out in Section 1(d). That definition should, in my opinion, be amended to specifically expand the scope of the term where a hearing is required, to include:

> "...all documentary and oral evidence which may be admitted by the Board for its consideration at the hearing".

Logic dictates such a position and the reality of the environmental assessment process demands it.

Nothwithstanding the above, I find on the evidence that the "economic growth" rationale put forward by the Region was mentioned, albeit in a cursory fashion, in the environmental assessment submission and consequently technically included within the definition of environmental assessment as set out in the Act.

During the course of his argument, Mr. Turkstra indicated to the Board how, in his opinion, the Region had failed to properly assess several matters of importance relating to the proposed undertaking. For example, he argued that the Region had not considered the extension of Burlington Street (referred to elsewhere as the Perimeter Road) as one of the reasonable alternatives to the proposed undertaking or other reasonable alternatives designed to encourage increased economic growth in the region other than the construction of the proposed facility. In Mr. Turkstra's view, other matters such as the impacts arising from the proposed location of the expressway in the vicinity of the two landfill sites and the pipeline were not dealt with in the appropriate manner as required by the legislation, and consequently the environmental assessment of the Region's undertaking should be deemed unacceptable.

When asked by me at the hearing what would happen in the event that the Board held that the environmental assessment was unacceptable, Mr. Turkstra replied:

> "the end result of reaching a conclusion that the submission is not sound is to dismiss the application on the grounds that the submission is not adequate." (Record, Volume 99, page 21,720)

I am not sure that this conclusion in fact follows from a careful reading of Section 12(2) of the Act, however I am of the firm opinion that a decision on the acceptability of the environmental assessment is a separate and distinct decision from that concerning whether or not approval to proceed with the undertaking should or should not be given.

To hold otherwise, would ignore the structure of the Act which clearly contemplates that both the Minister and the Board shall, in the appropriate circumstances, make a decision with respect to the adequacy of the environmental assessment and then, after reaching the conclusion that it is acceptable, decide as to whether or not approval to proceed should or should not be given. If such were not the case then an acceptance of the environmental assessment would be the equivalent of granting approval to proceed.

It is clear from my reading of the legislation that neither the Minister nor the Board is obliged to give approval to proceed simply because the environmental assessment has been deemed acceptable.

Acceptability of the assessment, in my view, relates only to the adequacy or completeness of that process in the light of the criteria set out in the legislation (which must be interpreted on a reasonable basis) and which is sufficient to enable a decision to be made on the merits as to whether approval to proceed with the undertaking should or should not be given.

Unfortunately, the Act is not clear as to what happens if the Board, (as opposed to the Minister), finds that the environmental assessment is inconclusive or is otherwise unsatisfactory to enable a decision to be made as to whether an approval to proceed should or should not be issued. The Board is not given the powers of the Minister set out in Section 11 to require the proponent to carry out further research, investigation or studies etc. and presumably the only two options open to the Board would be to adjourn the case sine die or, I suppose, to ultimately reject the proponent's application on the grounds of an inadequate assessment of the undertaking.

This latter suggestion, however, is not altogether consistent with the wording of Section 12(2) of the Act as it does not seem to allow the Board to reject the environmental assessment and once again demonstrates the difficulties facing a Board in arriving at a logical and reasonable interpretation of its jurisdiction under this legislation.

On the evidence I find that the environmental assessment undertaken by the Region is acceptable and in my view meets the requirements of the Act and the regulations and is sufficient to enable a decision to be made as to whether approval to proceed with the undertaking should or should not be given.

FUNDING OF THE PROPOSED FACILITY

The economic implications with respect to the construction of the proposed facility were addressed at the hearing by Mr. Gerry Lawson, Treasurer and Chief Financial Officer for the Region and Mr. Bertrand Wolfman, a partner with the consulting firm of Currie, Coopers & Lybrand Ltd., and also Mr. John Farrow of the same firm, referred to earlier.

Mr. Wolfman stated that his study concerning the Region's financial status indicated that the Region's financial position was excellent and that since 1981 annual debt charges had continued to decline. While there was general agreement that the Region's finances were good in comparison to other municipalities, it became apparent as a result of Mr. Turkstra's cross-examination, that several factors relative to the financing of this project had not been investigated, and consequently their impact upon the Region's ability to pay for the roadway without a corresponding increase in taxes was to some extent unknown. For example, Mr. Wolfman did not look at projected spending for programs other than roads, nor did he look at the financial implications arising from a projected aging population or the possibility of a decreased tax assessment.

Although Mr. Wolfman's projections were based to a large degree upon a capital budget which would operate over the life of the Official Plan, in reality the Region sets a five year capital project budget. Thus, for example, if the Region decided to proceed with the construction of the Perimeter Road in the late 1980's, or chose to acquire the properties located within the proposed interchanges, the impact of these decisions would not have been taken into account in the financial projections put before the Board.

On the basis of its analysis, the Region maintained that its reserves were adequate to finance the interim needs of the roadway and that no new debt would have to be incurred.

By letter dated September 24, 1984, filed as Exhibit 320 in these proceedings, the then Minister of Transportation and Communications confirmed the Province's contribution to Stage 1. This contribution was based on a Stage 1 cost estimate of 66 million dollars (calculated in 1984 dollars) with the Provincial share being seventy percent and the Region's share being thirty percent. There was no commitment on the part of the Province with respect to future stages of the project and it was suggested by the Minister that meetings be held near the end of Stage 1 to discuss, at that time, the future allocations and scheduling of the remaining portions of the project.

Although, in my view, it is unlikely that the Province would decline funding with respect to subsequent stages of this project, priorities do change and it is possible that the Region could find itself responsible for a larger proportion of the Stage 2 and Stage 3 costs than anticipated.

As indicated earlier, it is necessary for the Region to obtain the consent of the Joint Board pursuant to Section 64, subsections (b) and (d) of the Ontario Municipal Board Act in order for it to exercise its powers to proceed with a proposed undertaking, the costs, or any portion of the costs of which is to be raised beyond the term for which the council was elected. It is apparent from the evidence that the Region will be able to afford its portion of the cost of the proposed facility in the light of its present and anticipated future financial position. I would nevertheless deny approval of the Region's application under Section 64 on the basis that the Region has failed to prove the necessity or expediency of the proposed undertaking. It is not, in my view, in the interests of either the municipal or provincial taxpayer to expend approximately 193 million dollars on a facility that can not be justified on the basis of need and the ability of the municipality to finance its proportion of the costs associated therewith does not warrant approval of the proponent's application in these circumstances.

MISCELLANEOUS ISSUES

Two important additional issues were raised during the course of this hearing which, in my opinion, deserve some comment. The first relates to the proposition put forward by both Mr. Sexton and Mr. Lederer, in varying degrees, to the effect that the Board should not overturn the decision of an elected council answerable to the people which, in their opinion, is in the best position to determine the relevant needs of the people affected by the proposed undertaking. The Board's role, in Mr. Sexton's view, is to determine whether or not Regional Council exercised its discretion to proceed with this undertaking in a reasonable fashion.

In this regard, Mr. Sexton made the following statements, and I quote:

> "The elected representatives have voted in favour of the undertaking and I suggest that the role of the Board is an extremely important one because what the opponents of this project are asking you to do is to overturn the decision of the Regional Council and to overturn what appears to be the majority support for this project, overwhelming majority, in favour of those few who take some exception to it." ...
>
> "As I say, for that reason, the role of the tribunal is tremendously important, but I respectfully suggest that the Board should be loathto interfere with the discretion of the elected officials in this case and, on balance, I suggest that the only reasonable result is that the various approvals which the Region seeks in this case be given and that this project be allowed to proceed." (Record, Volume 92, pages 20,137-38)

I do not agree with Mr. Sexton's view as to the role of this Board in connection with an application under the provisions of the Environmental Assessment Act for the following reasons:

The legislature has set out in clear and precise language the purpose of the Act which is stated to be "the betterment of the people of the whole or any part of Ontario by providing for the protection, conservation and wise management in Ontario of the environment". It therefore follows that any decisions which are to be made by the Minister or the Board, under the provisions of this Act, must be founded in terms of the provincial context and the public interest, in this regard, may not necessarily coincide with a particular local interest.

It is obvious that any municipal proponent will, in order to be in a legal position to present an environmental assessment to the Minister pursuant to Section 5(1), have received the support of a majority of the elected members of council, for it is a well established principle that elected councils speak only by way of resolution passed by a majority of members entitled to vote. Thus, I would submit that in all cases where an application is brought by a local municipality under the provisions of this Act, a majority of elected officials making up the council of the municipality have, in effect, decided to proceed with the undertaking. If such was not the case, there would be no application and nothing for the Minister or Board to decide.

Since the Minister, or if referred to the Board, the Board, is required under the Act to decide as to the acceptability of the environmental assessment and whether an approval to proceed with the undertaking should or should not be given, it again follows that the decision of the Minister or the Board may not necessarily coincide with that of elected council.

For whatever reasons, the legislature has decided that the decisions which are to be made under the provisions of the Environmental Assessment Act are to be made by the Minister or a provincially constituted appointed tribunal and there is nothing in this legislation which in any way fetters their discretion in this regard.

Once again, to hold otherwise, would render the hearing before the Joint Board meaningless and the mere submission of an environmental assessment by a local municipality to the Minister would in effect be equivalent to an approval to proceed.

It is, in my view, also inaccurate to conclude that a local municipality is in a better position than an independent provincial tribunal to evaluate and determine what the legislature considers to be a provincial interest.

That is not to say that the tribunal will not consider and take into account the position taken by the elected council on behalf of its constituents, however, in my view, it is neither bound by it nor should it place undue weight upon it. Unlike some planning decisions which may involve a relatively localized impact, it is, I think reasonable to conclude that the environment, and in particular the natural environment, is not necessarily limited to the jurisdictional boundaries of a municipality and more properly should be considered in terms of the provincial context.

The practice of the Ontario Municipal Board was reviewed by the Ontario Court of Appeal in the leading case of Re Hopedale Developments Ltd. and the Town of Oakville (47 D.L.R. (2d), 482). In considering the question as to whether or not the Ontario Municipal Board should interfere with the exercise of an elected Council's discretion in an appeal brought before that Board under the provisions of the Planning Act, the Court stated at page 487:

> "Although it is proper for the Board in an appeal under s. 30(19) of the Planning Act to consider certain principles in deciding an appeal, it is not proper for the Board to limit its consideration to the application of these principles. It is, of course, important to keep in mind, as the Board has done, that it is being asked to interfere with the discretion exercised by an elective body but that can be but one of the considerations which must be taken under review. The hearing before the Board is a hearing de novo and must be conducted as such."

Whether or not the ratio expressed in the case remains valid in light of the provisions of the new Planning Act is a matter that shall have to await further judicial interpretation, for decisions involving a "provincial interest" are no longer made by the OMB.

The second issue raised by Mr. Turkstra concerns the objectivity of consultants and hence their credibility in circumstances whereby, having participated in the environmental assessment of the undertaking, the same consultant may be engaged to implement the undertaking, if approved.

To put this statement in the context of this hearing, Mr. Turkstra suggested that because DelCan were the principal consultants who coordinated and to a large degree prepared the documentation comprising the environmental assessment submission, there should be some concern that their objectivity could be impaired. In the event this project is approved, DelCan will be at liberty to bid on further work associated with the proposed facility and, if successful, will stand to make a considerable profit from this additional work over a number of years in the future. It was noted by Mr. Turkstra that there is of course no guarantee that DelCan would be awarded any further work, however, having done some of the preliminary design work and being familiar with the project, there was certainly at least a possibility that this firm might receive favourable consideration.

I wish to state at the outset that there is no evidence whatsoever to indicate that the employees of DelCan who testified at the hearing, presented to the Board anything other than their unqualified professional opinions upon the matters in issue, and I want to make it clear that my reasons for decision on this application were not influenced in any way by the submissions of Mr. Turkstra in this regard.

The issue concerning what has been referred to as "reasonable apprehension of bias" or "perceived bias" is, however, of some importance in the overall context of the hearing process and since it arose as an issue at this hearing, provides the opportunity for me to consider the matter in that context.

The problem arises because of the existence of a potential conflict of interest in situations whereby consultants are asked for their opinions concerning the viability of the project under consideration with the knowledge that, if approved, they might well be awarded a contract for further work. No such potential conflict would occur in cases where an approval to proceed was refused; where the consultant stated at the outset that no bid with respect to further work would be submitted or where a consultant who had been involved with the project in the approval process was not permitted to engage in further work in the event the project were approved.

It is clear that the objective, from the perspective of the decision-maker, is to receive evidence from consultants in circumstances where there can be no question concerning a conflict of interest either actual or perceived. In the past, however, the practice in Ontario has not always met that objective.

There are many instances in this jurisdiction whereby, for example, consultants are hired for the purpose of conducting a hydrogeological assessment of a potential landfill site; proceed to testify to their findings before a board during the approval process; and then are retained to conduct both the monitoring and if necessary the remedial work after approval. What suffers, in my view, as a result of this practice is the perception on the part of the tribunal and the public at large that the evidence being presented during the approval process may not be completely objective and free from any potential conflict of interest.

Some jurisdictions, notably in the United States, have dealt with this problem by enacting legislation which prohibits consultants from engaging in future work with respect to the same project unless authorized to do so in certain extraordinary circumstances.

I think it extremely important in terms of the integrity of the hearing process that, where possible, every attempt be made to remove any suspicion that the evidence being tendered to the tribunal may have been influenced as the result of a potential conflict of interest concerning future work in connection with the same project. I am not convinced that a legislative prohibition is necessarily the only solution to this problem, however, it is one possibility that should be studied seriously.

Many projects which now come before the Board for approval involve complex issues which are subject to a great deal of study and interpretation on the part of expert witnesses and in my view it is essential that these witnesses arrive at their opinions solely on the basis of their experience and the facts at hand.

I am fully aware that this issue is one that must be approached with some degree of sensitivity, for most expert witnesses are professionals whose integrity is beyond reproach and who would never put forward anything other than their honest forthright opinions concerning matters within their sphere of expertise. As is the case, however, with so many facets of our legal system, neither actual nor perceived bias can or should be tolerated and the integrity of the environmental assessment process can only be maintained on this basis.

DISPOSITION OF APPLICATION

As mentioned at the outset of these reasons for decision, I have found it unnecessary to refer to all of the issues dealt with by the parties at the hearing which extended over a period of approximately 100 hearing days by reason that some were not, in my opinion, germaine to my disposition of this application. Likewise, I have not referred specifically to the evidence given by many members of the public, nor in some cases, by certain expert witnesses called by the proponent or those in opposition, however, in reaching the decisions hereinafter set out, all of the evidence has been carefully considered. As well, I wish to record my appreciation to all counsel who have participated in this application for assisting the members of this panel throughout a long and difficult hearing.

For the reasons set out above, I would dispose of this application as follows:

I would accept the Region's environmental assessment of its proposed undertaking submitted pursuant to the provisions of the Environmental Assessment Act; however, would deny the proponent approval to proceed with the undertaking in respect of which the environmental assessment was submitted, with the result that the proponent's application herein would be dismissed.

I would further allow an amendment to the Official Plan for the Hamilton-Wentworth planning area, deleting from the Plan references to the proposed East-West, North-South Transportation Facility.

With respect to the remaining matters before the Board under the provisions of the Niagara Escarpment Planning and Development Act, the Conservation Authorities Act, and Section 64 of the Ontario Municipal Board Act relating to approvals required in the event that the proponent's undertaking is approved, it follows that these further approvals are not required in consequence of my decision herein.

There remains only the matter of costs to be dealt with and to which I will now turn.

COSTS

At the outset of this hearing the Joint Board, after hearing extensive argument, made an award of costs in advance in favour of two clients represented by Mr. Turkstra in the sum of $75,212.50 which included monies on account of both legal fees and the fees of certain specified expert witnesses. This award was to be paid by the Region in accordance with the terms and conditions contained in the Order of the Joint Board dated November 5, 1984.

The Board's jurisdiction to make said cost award was challenged by the Region by way of judicial review before the Divisional Court of the Supreme Court of Ontario and the Court held that the Board had in fact exceeded its jurisdiction and did not have the power to fund by way of an award of costs in advance, the participation of the two citizen groups represented by

Mr. Turkstra in the subject proceedings. Accordingly, the Board's Orders were quashed.

It was apparent, however, that as of the date of the decision of the Court, the monies which were to be payable by the Region under the Board's order had in fact been paid. I am advised that as of the date of these reasons for decision, the Region has not been reimbursed for the monies expended in compliance with the Board's Order nor has it requested the Court to direct the said monies to be returned.

It is clear from the decision of the Court that the jurisdictional question relates only to the Board's power to award costs in advance of the conclusion of the hearing for, in the Court's opinion, success or entitlement cannot be determined before that time. It should be noted that neither Mr. Lederer nor the Divisional Court expressed any doubt as to the Joint Board's jurisdiction to make an award of costs at the conclusion of the proceedings in accordance with the provisions of Section 7 of the Consolidated Hearings Act.

On behalf of the Region, Mr. Lederer and Mr. Sexton advanced the argument that it was inappropriate to make an award of costs in view of the fact that, under the provisions of the Environmental Assessment Act, the proponent was under a statutory obligation to present both sides of the picture in the course of fulfilling the requirements of an environmental assessment submission. Accordingly, it was argued that it was unnecessary, and to some extent duplicitous, to entertain and encourage opposition to the Region's proposal.

In addition, Counsel for the Region argued that citizen participation in the hearing process merely reflected the exercise of democratic rights afforded by the legislation to those who might be affected as a result of the Region's decision to proceed with the proposed facility. Participation in this democratic process did not imply that the costs associated therewith should be paid for by a public proponent such as a municipality, which represented not only those citizens opposed to the undertaking but also those who were in support of it.

Dealing briefly with both of these arguments I would note that, although the Environmental Assessment Act would in theory require the proponent of an undertaking to assess it in the light of both positive and negative impacts, the hearing process as it has evolved in this jurisdiction, nevertheless retains many elements of an adversarial nature. I am sure that it comes as no surprise to anyone to suggest that a proponent will, in almost all cases, either consciously or unconsciously tend to present the facts in support of its undertaking in the best possible light. It is for this reason that it is essential, in my view, to allow for the fullest possible public participation in order that there is an opportunity for the proponent's evidence to be critically examined.

It is obvious that those in opposition to the application before the Board will also tend to concentrate on bringing out the negative aspects of the proposal and it is, I submit, only through this balanced approach that the decision-maker is in a position to render a decision on what may be termed the "best" evidence.

In the subject proceedings it was those in opposition that raised and examined in some depth many of the issues which led to my rejection of the proponent's application. In some instances it was the cross-examination of the proponent's witnesses by counsel for those in opposition that brought forth admissions extremely detrimental to the proponent's case and by way of illustration I refer to Dr. Coleman and Mr. Dutchak. Several of the MTC documents, which again proved detrimental to the proponent's case, were produced by those in opposition and indeed there is evidence to indicate that Counsel for the Region was unaware of the existence of some of this documentation, notwithstanding that copies would have been on file with the Region. If, therefore, as the Region maintains, it is the proponent's duty, under the Act, to make full and complete disclosure of all relevant evidence concerning the proposal to the Board, why was the Board required, on numerous occasions, to rule on the admissibility of documentation tendered by those in opposition and which, on several occasions, after being admitted, proved to be not only relevant but also damaging to the proponent's case?

With respect to the proponent's argument that a municipality should not be compelled to finance opposition to its proposals while is carrying out the will of the majority through its elected representatives in furtherance of what it perceives to be the public interest, I would point out that Section 7 of the Consolidated Hearings Act does not in any way fetter the Joint Board's discretion as to which party should bear the burden of a cost award. In several other cases held under the provisions of the Consolidated Hearings Act, Joint Boards have awarded costs against the proponent in circumstances where it was felt that the recipient of the cost award made a significant contribution to the hearing process, and through its participation enabled the decision-maker to reach a more informed decision. Moreover, to date all cost awards made against a proponent in favour of an intervenor have been upheld on appeal to Cabinet notwithstanding that in some instances the decision of the Joint Board on the merits was reversed or varied.

Although there is no doubt in my mind that an intervenor, by participating in the hearing process, is exercising a democratic right (specifically provided for in the legislation), it does not follow that the intervenor should necessarily suffer financial hardship as a result of that participation. All municipalities are publicly funded and residents of a proponent municipality who may wish to object to or question the proponent's proposal have, through taxes paid to the municipality, contributed to the cost of the proponent presenting its application to the Board. It is therefore neither illogical nor unfair for the Joint Board, in appropriate circumstances, to consider awarding costs against a municipality in favour of an intervenor where that participation has materially assisted the Board in resolving the issues before it.

In a hearing under the provisions of the Environmental Assessment Act, it is incumbent upon the Joint Board, in arriving at its decision to take into account the public interest, and this will often be best facilitated if members of the "affected public" are before the Board to present their views.

It is clear, however, from the decision of the Divisional Court that the cost power may not be utilized for the purpose of assuring participation in the proceedings but rather are payable by way of indemnity for allowable expenses and services incurred relevant to the case or proceeding.

I have considered Mr. Turkstra's motion for costs in the light of the criteria enunciated by the Divisional Court concerning the Board's power to award costs at the conclusion of a hearing and am of the view that a cost award in this case is fully justified. Although my colleagues have reached a similar decision, I wish to set out my own reasons for making an award of costs herein.

Mr. Turkstra presented to the Board a Bill of Costs on behalf of his clients, The Limeridge Road Property Owners Interest Group Inc. and the Save the Valley Committee Inc. for the period December 15, 1984 to June 21, 1985, which was filed as Exhibit 595 in these proceedings. In accordance with directions from the Board, Counsel for the Region was allowed to submit comments in writing with respect to Exhibit 595 subsequent to the last hearing day, June 20, 1985, and these comments were contained in a letter delivered to the Joint Board dated July 22, 1985. The comments contained in this letter elicited a written response from Mr. Turkstra's office dated September 6, 1985.

Dealing firstly with the period December 15, 1984 through June 21, 1985, it appears that the total counsel fees claimed by Mr. Turkstra are in the sum of $223,867.20 and when disbursements are added to this figure, the total amount claimed for fees and disbursements is in the sum of $232,119.42. As was mentioned earlier, the Board had previously awarded, pursuant to its Order dated November 5, 1984, the total sum of $75,212.50, which amount included the sum of $22,712.50 on account of legal fees and disbursements for the period up to and including November 1, 1984, and a further amount on account of legal fees and disbursements up to a maximum of $30,000.00. The remaining monies under the November 5th Order, in the sum of $22,500.00, was allocated to certain expert witnesses retained by Mr. Turkstra and scheduled to present evidence to the Board.

The Bill of Costs submitted by Mr. Turkstra, after taking into account the monies paid by the Region pursuant to the Board's Order, indicated a net deficiency of $25,025.49 for the period up to and including December 14, 1984 plus the additional $232,119.42, representing total legal fees and disbursements claimed for the balance of the hearing, resulting in a total balance outstanding in the sum of $257,144.91.

It also appears that the Region has paid a total of $19,061.52 to Mr. Turkstra on account of fees and disbursements for expert witnesses, and apparently the sum of $3,438.48 is being held by Mr. Turkstra in reserve to be applied against final accounts to be submitted by consultants. The final accounts of the seven expert witnesses called by Mr. Turkstra total $71,706.50 and the balance outstanding, after deducting the invoices paid by the Region to date plus the balance held by Mr. Turkstra in reserve, is in the sum of $49,206.30. I might add that I do not agree with written submissions made by Mr. Lederer with respect to the accounts of some of those who testified on behalf of those in opposition and find that accounts submitted by the experts called by Mr. Turkstra are, in my opinion, neither excessive nor unreasonable, particularly when compared with the accounts of some of the experts called by the Region.

I have reviewed the Bill of Costs submitted by Mr. Turkstra in detail in the light of the written submissions made by Mr. Lederer in connection therewith, and once again do not find the amounts therein excessive or unreasonable in terms of the hourly rates attributable to Mr. Turkstra personally or his associates. In fact, as pointed out by Mr. Turkstra in argument, he has fixed his own hourly rate at the lower end of the tariff set by the Hamilton Law Association.

It is apparent, however, that the Bill of Costs submitted by Mr. Turkstra is on a solicitor/client basis and the question as to whether or not a Board should award costs at the conclusion of the hearing on this basis has caused me some considerable concern. The sections of the Consolidated Hearings Act dealing with the matter of costs are as follows:

> "Section 7(4) A joint board may award the costs of a proceeding before the Joint Board.
>
> (5) A joint board that awards costs may order by whom and to whom the costs are to be paid.
>
> (6) A joint board that awards costs may fix the amount of the costs or direct that the amount be taxed, the scale according to which they are to be taxed, and by whom they are to be taxed."

There appears to be nothing in the legislation that circumscribes the Board's discretion in making such an award and, in particular, if the Board directs that the amount be taxed, whether or not it may be taxed on a solicitor and client or party and party basis, or for that matter any other basis. Although subsection (6) of section 7 does permit the Joint Board to specify the scale according to which the costs are to be taxed and also the person who shall carry out the taxation, the Board could, in my view, simply specify the use of a particular tariff such as the "Supreme Court" tariff without fettering the discretion of the taxing officer as to whether a solicitor/client or some other basis is appropriate in the specific circumstances.

Part of my difficulty stems from the fact that I do not consider the proceedings before a quasi-judicial tribunal such as the Joint Board, to be analogous in many respects to proceedings before the courts in civil matters. As has been stated elsewhere and before the Divisional Court in proceedings related to this application, there is an essential public interest component to proceedings before the Joint Board that is not present in a court action involving a lis inter partes. If, after hearing all of the evidence, the tribunal is of the opinion that the party seeking an award of costs has made a significant contribution in terms of providing the tribunal with information and other assistance of value to it in assessing the merits of the application, why should the tribunal, if it so chooses, not be at liberty to compensate said party for its actual out-of-pocket expenses relative to its participation in the hearing process?

I am cognizant of the fact that under the existing common law rules with respect to costs normally applied by the courts in Canada, the costs which are recoverable by a successful litigant from the loser represent only partial indemnity for actual expenses and are paid on a party and party basis which generally approximates 2/3 of the costs payable by that party to his own solicitor. Moreover, costs awarded by the courts in the common law provinces belong to the party and not to his solicitor. I do not, however, believe that the common law rules with respect to an award of costs and which are founded upon what is commonly referred to as "the damages theory of costs" are applicable to a proceeding such as is before this Board. Without a statutory provision to the contrary, it can be argued that the Joint Board is not bound by the common law rules that control the discretion of the courts with respect to awarding costs, and the discretion given the Board under Section 7 appears absolute even to the point of the Board awarding costs against itself. It must be stressed as well that there are no winners or losers in the traditional sense in a hearing conducted under the provisions of the Environmental Assessment Act and, consequently, costs may not necessarily follow the event.

Unlike litigation in the civil context wherein costs often act as a deterrent to the launching of unmeritorious litigation, those in opposition to a proposed undertaking have a statutory right (provided the request for a hearing is not deemed by the Minister to be frivolous or vexatious) to have their objections aired at a public hearing constituted for that purpose.

Mere participation, however, in my view means little if those parties objecting to the proposed undertaking are not in a position to put forward their evidence effectively and the tribunal is, in consequence, deprived of a perspective that is often not otherwise available but nevertheless essential in terms of "balancing" the proponent's evidence.

In an application such as the one before this Board, it is naive to suggest that any kind of critical analysis of the Region's proposal could have been seriously undertaken without the assistance of both competent counsel together with expert witnesses knowledgeable in a number of highly technical and complex areas and the number of experts called by the Region in support of its application, is ample testimony to this fact.

The question must therefore be asked; should responsible citizen groups appearing before the Board be required to incur personal financial responsibility in circumstances where they have provided important factual information and legal submissions which enable the decision-maker to be exposed to a broader range of ideas and viewpoints and which, in turn, will inevitably lead to a better appreciation of what is or is not in the public interest? Unfortunately, this question has not to date evoked a satisfactory or generally accepted response from either policy-makers or the tribunals themselves.

In the circumstances of this particular proceeding, the citizens' groups represented by Mr. Turkstra have made reasonable attempts over a considerable length of time to raise funds for the purpose of enabling them to oppose the Region's application and present their views to the Joint Board. To this end $40,000 had been raised although some considerable portion of this amount had been expended on related proceedings and research prior to the commencement of this hearing. I mention this because it is important, in my view, for intervenors to have underlined their concerns by raising some monies on their own for the purpose of financing their participation and this has, in the past, been one of the criteria considered by joint boards in awarding costs.

The above comments must also be considered in the light of what the Region has spent on account of its own legal and consultancy fees. The amounts involved in this regard are indeed staggering in comparison. Although it must be remembered that 70% of the Region's fees and disbursements related to this hearing are being subsidized by the province, it should also be noted that all of that money is derived from public tax revenues and those in opposition contribute in one form or another to those same tax revenues.

Although I would not normally be prepared to comment on the hourly rates or other amounts charged by expert witnesses called by the Region, it is of some interest to note that the fees and disbursements paid to two of the consultants, namely Currie, Coopers & Lybrand Ltd. and Dr. Norman

Pearson amount to approximately twice the amount required to pay for all of the expert witnesses called on behalf of the citizen groups represented by Mr. Turkstra. This is significant, in my view, because, regrettably, I have found the evidence of both of these consultants to be of limited assistance to me in arriving at my decision on this application. I would also point out that the Region, found it necessary, in the course of presenting its application to the Board, to keep various consultants in attendance at the hearing for lengthy periods of time. It is not my intention to criticize the judgment of Counsel for the Region concerning which consultants should or should not be in attendance and for how long. However, there is little doubt in my mind that a public sector proponent, whose costs are being paid for out of the public purse, does not find itself under the same degree of financial constraint as those in opposition, particularly those parties comprising members of the public.

Accordingly, after considering all of the circumstances including the submissions made by counsel, I have reached the conclusion that costs should be awarded against the Region in favour of the two citizens' groups represented by Mr. Turkstra in an amount sufficient to cover a substantial portion of expenses incurred by those parties.

I would therefore fix costs in the sum of $200,000.00 on account of legal fees and disbursements together with an additional $49,206.30 on account of fees and disbursements owing to expert witnesses. These amounts have been arrived at after taking into account monies paid by the Region pursuant to the Board's Order dated November 5, 1984 and which, to date, have not been returned to the Region. In the event that the Region receives reimbursement for monies paid pursuant to said Order, I would increase the amount awarded herein on account of legal fees and disbursements by the sum of $52,702.50, and for fees and disbursements payable to experts by the sum of $19,061.52.

I wish to state for the record that in making the award of costs herein as set out above, I am not in any way intending to give weight to a principle that where a cost award is made in favour of an intervenor, it should indemnify to the fullest extent possible that intervenor with respect to the actual out-of-pocket expenses incurred by him. Every application for costs must be determined, in my view, on the basis of the particular fact situation and unless and until specific rules or principles relative to the award of costs are developed in conjunction with the Consolidated Hearings Act, the discretionary powers set out in Section 7 must remain in the absolute domain of the sitting panel constituting a specific Joint Board.

In conclusion, by way of observation, I would like to add that this hearing more than any other since the inception of the Environmental Assessment Act attests to the necessity for early reform of the environmental assessment process. It is indeed difficult to understand why a hearing involving a roadway proposal should last approximately eight (8) months and generate the type of expenditure in both time and monies as has resulted in this case. I am in agreement with my colleagues' opinion that, on occasion, examination and cross-examination were repetitious and unnecessarily lengthy in duration and altogether too much valuable time was occupied with contentious procedural motions; however, in the circumstances, I do not attach any blame to Counsel for the Region and those in opposition for what may be attributed to shortcomings in the environmental assessment process itself. I am satisfied that all counsel have exercised their best judgment in the preparation and presentation of this application under the provisions of the Act.

I am of the strong belief, however, that unless steps are taken in the near future to require some form of mandatory scoping procedure with respect to the issues which are to be included in an environmental assessment submission and correspondingly in the presentation of those issues during the course of a hearing, then the costs of this process, both monetary and otherwise, will continue to escalate.

In attempting to address every possible issue which might arise at a hearing, the proponent is forced to institute studies and retain experts to deal with issues which may not, in the final analysis, be relevant to the decision at hand or be the subject of any dispute whatsoever. Those in opposition, however, feel obliged, with some justification, to respond in kind, and by the time the application reaches the hearing stage, any element of reasonableness has disappeared from the process itself. It is my opinion that a thorough reassessment of the legislation itself should be undertaken by those responsible in the very near future.

DATED AT TORONTO THIS 24TH DAY OF OCTOBER, 1985.

M.I. JEFFERY, Q.C.
CHAIRMAN OF THE JOINT BOARD